Illinois Nutrient Loss Reduction Strategy

# Point Source Appendix

Biennial Report 2021



#### VILLAGE OF BARTLETT Staff and Financial Resources (JANUARY - DECEMBER 2019)

Description:	Project Name	Dollars:
<b>Capital Improvements:</b> Some facilities have a single "nutrient project." They will probably find answering the capital improvements project somewhat easier. Most other people will have a greater difficulty. Please use your best judgement to provide an answer.	WWTP Improvements Design	\$1.7M
Operations and Maintenance and Staff: These will be difficult to differentiatte because multiple parts of the treatment plant treat nutrients and other pollutants. If you decide that phosphorous is just another NPDES Permit Limit and you have 7 other numeric limits, so 1/8 of your O&M time is nutrients - that is a valid explanation. If you can look at work orders with more precision and classify work as N or P related, or not, that is another way to manage these questions. For the purposes of these questions, please consider ammonia to be a limit of a toxic substance, rather than a source of nitrogen fertilizer.		
Feasibility Studies or Permit Required Projects not already listed (add rows if more than one)		
Staff (No. of staff hours in the year or FTEs & approx. \$ value) working on nutrient related matters		
Other Resources Invested (add more rows if needed)		



#### VILLAGE OF BARTLETT Outreach and Communication Activities (JANUARY - DECEMBER 2019)

Description:	No. of Events	No. of Attendants (if applicable)	Description	Partnerships:
Presentations, Conferences & Workshops (add rows as needed)				
Print or Media (add rows as needed)				
Other Activities:				



#### VILLAGE OF BARTLETT Facility Nutrient Tracking (JANUARY - DECEMBER 2019)

	NPDES	Nutrient Removal (Bio-P, Bio-N, None etc.)	DAF	Year	Daily Avg. Flow	Total P In	Total P Out	Total P Out Annual Avg.	In	Total N Out	Total N Out Annual Avg.	Watershed group (WS Group name or "No")	Comments (about data, and Capital Projects for Nutrients, what was done, \$ spent etc.)
			MGD		MGD	lb/yr	lb/yr	(mg/L)	lb/yr	lb/yr	(mg/L)		
Bittersweet WWTP (B01)	IL0027618	None	3.679	2017	2.5	37,960	22,630	3.0	251,120	190,165	25.0	DuPage River Salt Creek Workgroup (DRSCW)	\$150,000 Facility Plan Update, \$31,095 DRSCW Dues
			3.679	2018	2.5	37,960	22,630	3.0	251,120	190,165	25.0	DRSCW	\$45,202 DRSCW Dues
			3.679	2019	2.5	37,960	22,630	3.0	251,120	190,165	25.0	DRSCW	\$46,558 DRSCW Dues, begin design on WWTP & Devon
				2020								DRSCW	\$70,951 DRSCW Dues
				2021								DRSCW	\$73,080 DRSCW Dues, Construction to begin
				2022								DRSCW	\$75,273 DRSCW Dues
				2023								DRSCW	\$77,530 DRSCW Dues
				2024								DRSCW	\$79,867 DRSCW Dues
				2025								DRSCW	\$82,253 DRSCW Dues
						377,027							



#### VILLAGE OF BARTLETT Facility Nutrient Tracking (JANUARY - DECEMBER 2019)

	NPDES	Nutrient Removal (Bio-P, Bio-N, None etc.)	DAF	Year	Daily Avg. Flow	Total P In	Total P Out	Total P Out Annual Avg.	Total N In	Total N Out	Total N Out Annual Avg.	Watershed group (WS Group name or "No")	Comments (about data, and Capital Projects for Nutrients, what was done, \$ spent etc.)
	IL0027618-				1 Event								Revision of IGA with MWRD, \$150,000
<b>Devon Excess Flow Facility</b>	002	None	N/A	2017	(0.379)	1,032.95	189.80	N/A	8,548.30	657.0	N/A	DRSCW	Engineering
					4 Events								Negotiations with MWRD, \$150,000
			N/A	2018	(.915)	1,033.0	190	N/A	8,548	657	N/A	DRSCW	Engineering
					4 Events								
			N/A	2019	(1.158)	1,095.0	365	N/A	8,395	730	N/A	DRSCW	Design on Excess Flow has begun
			N/A	2020								DRSCW	
				2021								DRSCW	
				2022								DRSCW	
				2023								DRSCW	
				2024								DRSCW	
				2025								DRSCW	



# BLOOMINGTON & NORMAL WATER RECLAMATION DISTRICT Staff and Financial Resources (JANUARY - DECEMBER 2019)

Description:	Project Name	Dollars:
Capital Improvements (add rows if more than one)		
Operations and Maintenance (staff, materials and supplies for day to day nutrient work)		
Feasibility Studies or Permit Required Projects not already listed (add rows if more than one)	Long Range Assessment	\$ 39,569.00
Staff (No. of staff hours in the year or FTEs & approx. \$ value) working on nutrient related matters		
Other Resources Invested (add more rows if needed)	rate study	\$ 12,500.00



### BLOOMINGTON & NORMAL WATER RECLAMATION DISTRICT Outreach and Communication Activities (JANUARY - DECEMBER 2019)

Description:	No. of Events	No. of Attendants (if applicable)	Description	Partnerships:
Presentations, Conferences & Workshops (add rows as needed)				
Print or Media (add rows as needed)				
Other Activities:				



# BLOOMINGTON & NORMAL WATER RECLAMATION DISTRICT Facility Nutrient Tracking (JANUARY - DECEMBER 2019)

Facility	NPDES Number	Nutrient Removal (Bio-P, Bio-N, None etc.)	DAF	Year	Daily Avg.	In	Total P Out	Annual Avg.	In	Out	Total N Out Annual Avg.	Watershed group (WS Group name or "No")	Comments (about data, and Capital Projects for Nutrients, what was done, \$ spent etc.)
			MGD		MGD	lb/yr	lb/yr	(mg/L)	lb/yr	lb/yr	(mg/L)		
Facility No. 1	IL0027731	None	22.5	2017	15.1	177,755	101,470	2.49		819,790	18.90	No	Design Engineering \$102,003
	IL0027731	None	22.5	2018	15.7	166,331	101,236	2.42		779,275	19.80	No	TN concentration is measured 1 day/month as per permit requirements
	IL0027731	None	22.5	2019	20.67	163,885	95,995	1.78		821,980	13.76	No	TN concentration is measured 1 day/month as per permit requirements
				2020									
				2021									
				2022									
				2023									
				2024									
				2025									



# BLOOMINGTON & NORMAL WATER RECLAMATION DISTRICT Facility Nutrient Tracking (JANUARY - DECEMBER 2019)

Facility	NPDES	Nutrient Removal (Bio-P, Bio-N, None etc.)	DAF	Year	Daily Avg. Flow	Total P In	Total P Out	Total P Out Annual Avg.	Total N Out	Total N Out Annual Avg.	Watershed group (WS Group name or "No")	Comments (about data, and Capital Projects for Nutrients, what was done, \$ spent etc.)
Facility No. 2	U 0073504	Nana	7.5	2017	3.8	CO 055	43,263	3.74	257,957	22.30	No	Design Facines vinc (02 721 Haggeds (1000
Facility No. 2	IL0073504 IL0073504		7.5	2017	4.09	60,955 60,910	40,442	3.63	245,645		No No	Design Engineering \$92,731 Upgrade \$1080
	IL0073504		7.5	2019	5.07	62,050	39,420	3.02	275,406		No	
	120073301	None	7.5	2020	3.07	02,030	33,120	3.02	273,100	13.01	110	
				2021								
				2022								
				2023								
				2024								
				2025								



#### DOWNERS GROVE SANITARY DISTRICT Staff and Financial Resources (JANUARY - DECEMBER 2019)

Description:	Project Name	Dollars:
Capital Improvements (add rows if more than one)	ex. Equipment or Construction costs	
Operations and Maintenance (staff, materials and supplies for day to day nutrient work)		
Feasibility Studies or Permit Required Projects not already listed (add rows if more than one)	Purchased process modeling software	\$6,040
Staff (No. of staff hours in the year or FTEs & approx. \$ value) working on nutrient related matters	General Manager time, roughly 10% of hours for period, including labor overhead	\$12,000
Other Resources Invested (add more rows if needed)		



# DOWNERS GROVE SANITARY DISTRICT Outreach and Communication Activities (JANUARY - DECEMBER 2019)

Description:	No. of Events	No. of Attendants (if applicable)	Description	Partnerships:
Presentations, Conferences & Workshops (add rows as needed)	1	1	Attend INLRS Meeting in Springfield	
Print or Media (add rows as needed)				
Other Activities:				



#### DOWNERS GROVE SANITARY DISTRICT Facility Nutrient Tracking (JANUARY - DECEMBER 2019)

Facility		Nutrient Removal (Bio-P, Bio-N, None etc.)	DAF	Year	Daily Avg. Flow	Total P		Total P Out Annual Avg.		Total N Out	Total N Out Annual Avg.	Watershed group (WS Group name or "No")	Comments (about data, and Capital Projects for Nutrients, what was done, \$ spent etc.)
			MGD		MGD	lb/yr	lb/yr	(mg/L)	lb/yr	lb/yr	(mg/L)		
				2017									
				2018									
Wastewater Treatment		PDOP - attempting										DuPage River Salt Creek	Used primary sludge and hauled sugar
Center	IL0028380	BNR	11	2019	13.44	158,305	73,152	2.2	922,456	433,943	13.2	Work Group	waste for process carbon additions
				2020									
				2021									
				2022									
				2023									
				2024									
				2025									



#### DUPAGE RIVER SALT CREEK WORKGROUP Staff and Financial Resources (JANUARY - DECEMBER 2019)

Description:	Program (if applicable):	Dollars:
Grants or Loans Received	-	-
Grants Given	-	-
Other Resources Invested (add more rows if needed)	-	-
Description:	Program (if applicable):	Number of staff:
Total Staff working on NLRS activities (in any capacity)	Nutrient Implementation Planning	2



#### DUPAGE RIVER SALT CREEK WORKGROUP Outreach and Communications (JANUARY - DECEMBER 2019)

Description:	Name:	Attendance:	Topics Covered:	Partnerships:	Response/Feedback:
Field Days: Includes learning activities sponsored at demonstration farms, water treatment plants and other locations.	-	-	-	-	-
Conferences (add rows as needed): Include conferences that your organization has sponsored. (Please do not include conferences you have attended; if someone from your organizations has given a presentation at a conference, please record it in "Presentations.")	-	-	-	-	-
Presentations (add rows as needed): Include any presentations your organization has given to farmers and other stakeholders at conferences,	DRSCW Special Condition Permit Holders Meeting - December 2019	30	2019 NLRS Update	-	Positive
educational sessions, ag community groups, and other venues. (Please do not include presentations that were only attended.)		50	NLRS goals for POTWs, NIP/NARP implementation	IWEA Watershed Committee	Positive
,,	IWEA NARP Workshop - November 2019	60	NLRS goals for POTWs, NIP/NARP implementation	IWEA Watershed Committee	Positive
	Illinois Wastewater Professionals Conference - May 2019	40	NLRS goals for POTWs, NIP/NARP implementation	IEPA Watershed Committee	Positive



#### FLAGG CREEK WATER RECLAMATION DISTRICT Staff and Financial Resources (JANUARY - DECEMBER 2019)

Description:	Project Name	Dollars:
Capital Improvements (add rows if more than one)	Phosphorus Removal Project	\$4,000,000
Operations and Maintenance (staff, materials and supplies for day to day nutrient work)	Labor, Chemicals, Sludge Removal	\$511,000
Feasibility Studies or Permit Required Projects not already listed (add rows if more than one)	None	
Staff (No. of staff hours in the year or FTEs & approx. \$ value) working on nutrient related matters	1 FTE	\$100,000
Other Resources Invested (add more rows if needed)	Engineering Planning BNR	\$50,000



### FLAGG CREEK WATER RECLAMATION DISTRICT Outreach and Communication Activities (JANUARY - DECEMBER 2019)

Description:	No. of Events	No. of Attendants (if applicable)	Description:	Partnerships:
Presentations, Conferences & Workshops (add rows as needed)	N/A	N/A	N/A	N/A
Print or Media (add rows as needed)	N/A	N/A	N/A	N/A
Other Activities:	N/A	N/A	N/A	N/A



#### FLAGG CREEK WATER RECLAMATION DISTRICT Facility Nutrient Tracking (JANUARY - DECEMBER 2019)

	NPDES	Nutrient Removal (Bio-P, Bio-N, None			Daily Avg.	Total	Total P	Total P Out	Total N	Total N	Total N Out	Watershed group (WS Group name or	Comments (about data, and Capital Projects for
Facility	Number	etc.)	DAF	Year	Flow	P In	Out	Annual Avg.	In	Out	Annual Avg.	"No")	Nutrients, what was done, \$ spent etc.)
			MGD		MGD	lb/yr	lb/yr	(mg/L)	lb/yr	lb/yr	(mg/L)		
Facility No. 1	IL0022586	none	12	2017	12.35	3,528	2,514	2.2	1,236	22,584	18.7	No	
Facility No. 1	IL0022586	none	12	2018	12.99	3,816	2,244	1.9	900	18,564	19.7	No	
Facility No. 1	IL0022586	none(Jan-Jul)/Chem- P(Aug-Dec)	12	2019	15.98	2,724	1,704	1.2	1,188	19,596	18.4	No	TP out <b>loading</b> (approx): Jan-Jul = 1,200, Aug-Dec = 500
				2020									
				2021									
				2022									
				2023									
				2024									
				2025									



#### FOX RIVER WATER RECLAMATION DISTRICT Staff and Financial Resources (JANUARY - DECEMBER 2019)

Description:	Project Name	Dollars:
[Canital Improvements (add rows it more than one)	Albin D. Pagorski WRF Phosphorus Removal Improvements - Liquid Process Facilities	1,361,500
	Albin D. Pagorski WRF Phosphorus Removal Improvements - Struvite Facilities	769,500
	North WRF Phosphorus Removal Improvements	1,107,500
Operations and Maintenance (staff, materials and supplies for day to day nutrient work)		
Feasibility Studies or Permit Required Projects not already listed (add rows if more than one)		
Staff (No. of staff hours in the year or FTEs & approx. \$ value) working on nutrient related matters	7 Workshops for 3 Projects, Weekly Conference Calls	57,240
Other Resources Invested (add more rows if needed)		



#### FOX RIVER WATER RECLAMATION DISTRICT Staff and Financial Resources (JANUARY - DECEMBER 2019)

Description:	Project Name	Dollars:
Canital Improvements (add rows it more than one)	Albin D. Pagorski WRF Phosphorus Removal Improvements - Liquid Process Facilities	496,500
	Albin D. Pagorski WRF Phosphorus Removal Improvements - Struvite Facilities	183,900
	North WRF Phosphorus Removal Improvements	544,200
Operations and Maintenance (staff, materials and supplies for day to day nutrient work)		
Feasibility Studies or Permit Required Projects not already listed (add rows if more than one)		
Staff (No. of staff hours in the year or FTEs & approx. \$ value) working on nutrient related matters	4 Workshops for 3 Projects, Weekly Conference Calls	19,980
Other Resources Invested (add more rows if needed)		



#### FOX RIVER WATER RECLAMATION DISTRICT Staff and Financial Resources (JANUARY - DECEMBER 2019)

Description:	Project Name	Dollars:
Capital Improvements (add rows if more than one)	Albin D. Pagorski WRF Phosphorus Removal Improvements - Liquid Process Facilities	106,400
	Albin D. Pagorski WRF Phosphorus Removal Improvements - Struvite Facilities	439,700
	North WRF Phosphorus Removal Improvements	1,540,500
Operations and Maintenance (staff, materials and supplies for day to day nutrient work)		
Feasibility Studies or Permit Required Projects not already listed (add rows if more than one)		
Staff (No. of staff hours in the year or FTEs & approx. \$ value) working on nutrient related matters	Overseeing Design and Construction Activities	94,600
Other Resources Invested (add more rows if needed)		



#### FOX RIVER WATER RECLAMATION DISTRICT Outreach and Communication (JANUARY - DECEMBER 2019)

Description:	No. of Events	No. of Attendants (if applicable)	Description	Partnerships:
Presentations, Conferences & Workshops (add rows as needed)				
Print or Media (add rows as needed)				
Other Activities:				



#### FOX RIVER WATER RECLAMATION DISTRICT Facility Nutrient Tracking (JANUARY - DECEMBER 2019)

		Nutrient Removal			Daily						Total N Out		Comments
	NPDES	(Bio-P, Bio-N,			Avg.	Total P	Total P	Total P Out	Total N	Total N	Annual	Watershed group	(about data, and Capital Projects for
Facility	Number	None etc.)	DAF	Year	Flow	In	Out	Annual Avg.	In	Out	Avg.	(WS Group name or "No")	Nutrients, what was done, \$ spent etc.)
			MGD		MGD	lb/yr	lb/yr	(mg/L)	lb/yr	lb/yr	(mg/L)		
Albin D. Pagorski WRF	IL0028657	None	25	2017	17.15	193,000	145,000	3.06	1,315,000	1,236,000	26.1	Fox River Study Group	
				2018	19.14	284,000	171,000	3.20	1,742,000	1,320,000	24.7	Fox River Study Group	
				2019	20.04	302,000	176,000	3.12	1,760,000	1,422,000	23.3	Fox River Study Group	
				2020									
				2021									
				2022									
				2023									
				2024						·			
				2025						·			



#### FOX RIVER WATER RECLAMATION DISTRICT Facility Nutrient Tracking (JANUARY - DECEMBER 2019)

Facility	NPDES Number	Nutrient Removal (Bio-P, Bio-N, None etc.)	DAF	Year	Daily Avg. Flow	Total P In	Total P Out	Total P Out Annual Avg.	Total N In	Total N Out	Total N Out Annual Avg.	Watershed group (WS Group name or "No")	Comments (about data, and Capital Projects for Nutrients, what was done, \$ spent etc.)
			MGD		MGD	lb/yr	lb/yr	(mg/L)	lb/yr	lb/yr	(mg/L)		
North WRF	IL0028665	None	7.75	2017	4.97	51,000	32,200	2.13	351,000	197,100	13.0	Fox River Study Group	
				2018	4.81	46,000	28,500	1.95	356,000	193,000	13.2	Fox River Study Group	
				2019	5.09	51,300	27,100	1.75	385,000	185,000	11.9	Fox River Study Group	
				2020									
				2021									
				2022									
				2023									
				2024									
				2025									



#### FOX RIVER WATER RECLAMATION DISTRICT Facility Nutrient Tracking (JANUARY - DECEMBER 2019)

Facility	NPDES	Nutrient Removal (Bio-P, Bio-N, None etc.)	DAF	Year	Daily Avg. Flow	Total P In	Total P Out	Total P Out Annual Avg.	Total N In	Total N Out	Total N Out Annual Avg.	Watershed group (WS Group name or "No")	Comments (about data, and Capital Projects for Nutrients, what was done, \$ spent etc.)
			MGD		MGD	lb/yr	lb/yr	(mg/L)	lb/yr	lb/yr	(mg/L)		
West WRF		Bio-N, 5-stage Bardenpho	5.0	2017	3.53	44,700	7,740	0.72	360,000	91,700	8.53	Fox River Study Group	
				2018	3.71	51,600	8,920	0.79	589,000	135,000	12.0	Fox River Study Group	
				2019	3.80	49,900	11,600	1.00	481,000	141,000	12.2	Fox River Study Group	
				2020									
				2021									
				2022									
				2023									
				2024									
				2025									



#### KISHWAUKEE WATER RECLAMATION DISTRICT Staff and Financial Resources (JANUARY - DECEMBER 2019)

Description:	Project Name	Dollars:
Capital Improvements (add rows if more than one)	Ph. 1B Biological Improvements Project	\$48 Million (2017 through current)
Operations and Maintenance (staff, materials and supplies for day to day nutrient work)		
Feasibility Studies or Permit Required Projects not already listed (add rows if more than one)		
Staff (No. of staff hours in the year or FTEs & approx. \$ value) working on nutrient related matters		
Other Resources Invested (add more rows if needed)		



# KISHWAUKEE WATER RECLAMATION DISTRICT Outreach and Communications (JANUARY - DECEMBER 2019)

Description:	No. of Events	No. of Attendants (if applicable)	Description	Partnerships:
Presentations, Conferences & Workshops (add rows as needed)				
Print or Media (add rows as needed)				
Other Activities:				



#### KISHWAUKEE WATER RECLAMATION DISTRICT Facility Nutrient Tracking (JANUARY - DECEMBER 2019)

Facility	NPDES Number	Nutrient Removal (Bio-P, Bio-N, None etc.)	DAF	Year	Daily Avg. Flow	Total P	Total P Out	Total P Out	Total N	Total N	Total N Out Annual Avg.	Watershed group (WS Group name or "No")	Comments (about data, and Capital Projects for Nutrients, what was done, \$ spent etc.)
		,	MGD		MGD	lb/yr	lb/yr	(mg/L)	lb/yr	lb/yr	(mg/L)		
				2017									
				2018									
KWRD WWTP	IL0023027	None	8.63	2019	7.13	83,778	50,137	2.3				Upper South Branch Kishwaukee River Watershed	90% complete construction of \$48M BNR Project
				2020									
				2021									
				2022									
				2023									
				2024									
				2025									



#### VILLAGE OF LIBERTYVILLE Staff and Financial Resources (JANUARY - DECEMBER 2019)

Description:	Project Name	Dollars:
Capital Improvements (add rows if more than one)	Design, Equipment & Construction Chemical P Facility	\$1,691,314.10
Operations and Maintenance (staff, materials and supplies for day to day nutrient work)	1/7 operational plus \$85,538.00 P removal Chemical	\$292,022.00
Feasibility Studies or Permit Required Projects not already listed (add rows if more than one)		
Staff (No. of staff hours in the year or FTEs & approx. \$ value) working on nutrient related matters	1 FTE + benefits	\$74,000.00
Other Resources Invested (add more rows if needed)		



#### VILLAGE OF LIBERTYVILLE Outreach and Communications (JANUARY - DECEMBER 2019)

Description:	No. of Events	No. of Attendants (if applicable)	Description	Partnerships:
Presentations, Conferences & Workshops (add rows as needed)	12	N/A	DRWW Mtgs.	DRWW member communities'
Print or Media (add rows as needed)				
Other Activities:				



#### VILLAGE OF LIBERTYVILLE Facility Nutrient Tracking (JANUARY - DECEMBER 2019)

		<b>Nutrient Removal</b>									Total N Out	Watershed group	Comments
	NPDES	(Bio-P, Bio-N,			Daily Avg.	Total P	Total P	Total P Out	Total N	Total N	Annual	(WS Group name or	(about data, and Capital Projects for
Facility	Number	None etc.)	DAF	Year	Flow	In	Out	Annual Avg.	In	Out	Avg.	"No")	Nutrients, what was done, \$ spent etc.)
			MGD		MGD	lb/yr	lb/yr	(mg/L)	lb/yr	lb/yr	(mg/L)		
Facility No. 1	IL0029530	None	4.0	2017	3.77	51,758	34,429	3.00		275,545	24.0	DRWW	
		None	4.0	2018	3.54	37,285	29,171	2.71		240,307	22.3	DRWW	
		None	4.0	2019	4.09	31,239	26,768	2.15		255,233	20.5	DRWW	
		Chemical P	4.0	2020	3.8	40,094	11.568	1.00		257,571	22.3		Projected estimates \$85K operational chemical cost (see Staff & Financial sheet for other costs)
				2021		•	,			•			,
				2022									
				2023									
				2024									
				2025									



### METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO Staff and Financial Resources (JANUARY - DECEMBER 2019)

Description:	Project Name	Dollars:
Capital Improvements (add rows if more than one)	Capital Improvements Total	\$1,545,618
	Contract 11-195-AP, Ostara Phosphorus Recovery Facility, Stickney Water Reclamation Plant (SWRP) (recovery of phosphorus utilizing Ostara technology) construction completed, reactors in operation)	\$87,887
	Contract 15-120-3P, Conversion of old Gravity Concentration tanks to WASSTRIP Process, SWRP (WASSTRIP process will allow increased P recovery by the recovery facility)(construction completed)	\$33,537
	Contract 15-122-3P, Aeration Tanks Air Valve Automation in Batteries A, B, C and D, SWRP (will allow in-line fermentation in the anaerobic zones, enhancing the performance of Bio-P treatment process) (construction completed)	\$7,150
	Contract 15-124-3P, Conversion of Two Gravity Concentration Tanks to Primary Sludge Fermenters, SWRP (produce additional carbon to be introduced to the aeration batteries for use in stabilizing EBPR treatment process) (in construction)	\$1,327,819
	Contract 16-272-3P, Conversion of Primary Tanks to High Strength Waste Receiving and Distribution - Design and Evaluation of Alternatives, Calumet WRP (CWRP) (to allow us to receive a carbon sources to be introduced to the aeration batteries to allow EBPR to occur as this plant is carbon limited) (design completed by consultant, project on hold)	\$89,225
	Contract 18-248-3P, S2EBPR Pilot Study, CWRP (will pilot a sidestream return activated sludge fermentation to evaluate its effectiveness and benefits to EBPR for potential full scale implementation at any of the District's WRPs) (design completed in-house with costs included in Engineering's staff below. Bids have been received and construction should begin and be completed in 2020.)	\$0



### METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO Staff and Financial Resources (JANUARY - DECEMBER 2019)

Description:	Project Name	Dollars:
Operations and Maintenance (materials and supplies)	Operations and Maintenance Total	\$1,295,348
	Maintenance & Operations (M&O) Dept. – Kirie Bio-P instrumentation and equipment - maintenance parts & supplies	\$60,348
	M&O Dept - Ostara P removal - chemicals	\$1,235,000
Feasibility Studies or Permit Required Projects (add rows if more than one)	Feasibility Studies or Permit Req'd Projects Total	\$174,114
	Monitoring & Research (M&R) Dept Feasibility Study for Stickney WRP	\$35,600
	M&R Dept Feasibility Study for Calumet WRP	\$56,299
	M&R Dept Feasibility Study for O'Brien WRP	\$82,215
Staff (No. of staff or FTEs & approx. \$)	Staff Total	\$2,114,605
	Engineering Dept Design and Post award engineering, consultant oversight and construction oversight (~7 FTEs)	\$945,000
	M&O Dept – Kirie BioP instrumentation and pilot operation – Staff time instrument install, repair, sample, filter and perform instrument maintenance (~0.22 trades and ~0.48 operations staff FTEs).	\$63,605
	M&O Dept – Stickney BioP (operations staff, ~2 FTEs).	\$218,000
	M&R Dept Technical oversight on design and feasibility studies (~0.6 FTEs)	\$74,000
	M&R Dept Research and technical oversight at 7 WRPs (~2.5 FTEs)	\$357,000
	M&R Dept Research and Demonstration at the Fulton County site and other collaboration with the agricultural sector (~1.5 FTEs)	\$221,000
	M&R Dept Microbiological research and support (~2.5 FTEs)	\$236,000
Other Resources Invested (add rows if more than one)	Other Resources Total	\$159,050
	M&R Dept Research supplies and consumables at WRPs	\$14,700
	M&R Dept Research and Demonstration and collaboration with the agricultural sector at the Fulton County site	\$144,350



Description:	No. of Events	No. of Attendants (if applicable)	Description	Partnerships:
Presentations, Conferences & Workshops (add rows as needed)				
Field Day	1	150	July 16, 2019, the MWRD hosted a field day on District property at Fulton County to provide the agricultural community with an opportunity to visit demonstration and research fields and attend presentations discussing cover crops, denitrifying bioreactors, drainage water management, and riparian buffers for reducing nutrient losses from agricultural fields.	Illinois Farm Bureau, Illinois Central College, Fulton County Farm Bureau, University of Illinois, Nutrient Research & Education Council
Workshop	2	100	In commemoration of its 130th anniversary, staff with the MWRD held two road show events in 2019 to educate the public and various stakeholders on the work of the MWRD and illustrate the many issues facing their work, including nutrient loss reduction strategies.	
Presentations	93	6,466	MWRD staff and commissioners give nearly 100 presentations throughout Cook County, Illinois, discussing many issues facing the MWRD's work protecting the water environment, covering some mention of nutrients or a focus on nutrients	
Workshop	1	100	The seventh Annual Sustainability Summit held on October 16, offered partnering municipalities and environmental advocates the opportunity to learn about the latest trends in resource recovery and stormwater management	



Description:	No. of Events	No. of Attendants (if applicable)	Description	Partnerships:
Print or Media (add rows as needed)				
	15		These 15 media advisories/press releases were also posted on MWRD social media, including Facebook, LinkedIn, Twitter and Instagram.	
Press Release	1		June 13, "Illinois Groups Working on NLRS, Water Quality Showcase Collaboration at Water Resources Conference." https://mwrd.org/illinois-groups-working-nlrs-water-quality-showcase-collaboration-water-resources-conference	Illinois Farm Bureau, Illinois Nutrient Research and Education Council, the Illinois Chapter of Sierra Club, and research partners at Southern Illinois University Carbondale, University of Illinois and Purdue University
Press Release	1		July 15, "Rural and Urban Communities to Showcase Scientific Research to Improve Illinois Water Quality during Field Day." https://mwrd.org/rural-and-urban-communities-showcase-scientific-research-improve-illinois-water-quality-during	Fulton County Farm Bureau, Illinois Farm Bureau, Illinois Nutrient Research & Education Council, University of Illinois Extension and Prairie Research Institute
Press Release	1		July 5, 2019, "Hundreds celebrate MWRD's 130th Anniversary and Infrastructure Week 7/5/2019." https://mwrd.org/sites/default/files/2019- 07/19_0705_Open_House_followup.pdf	Cook County Sheriff's Office



Description:	No. of Events	No. of Attendants (if applicable)	Description	Partnerships:
Print or Media (Cont.):				
Press Release	1		Aug. 16, 2019, "Field Day exposes Illinois farmers to MWRD nutrient management strategies in Fulton County." https://mwrd.org/sites/default/files/2019-08/19_07xx_Fulton%20County.pdf	Illinois Farm Bureau (IFB), Fulton County Farm Bureau, Prairie Research Institute, Illinois Nutrient Research & Education Council and University of Illinois Extension
Press Release	1		Sept. 5, 2019, "MWRD welcomes U.S. Rep. Jesús G. "Chuy" García, State Rep. Celina Villanueva for tour of Stickney Water Reclamation Plant." https://mwrd.org/sites/default/files/2019-09/19_09xx_Rep.%20Garcia.pdf	Office of U.S. Rep. Jesús G. "Chuy" García (IL- 4th) and State Rep. Celina Villanueva (21st Dist.)
Press Release	1		Sept. 9, 2019, "Climate Week tour leads U.S. Rep. Casten to MWRD's Stickney Water Reclamation Plant to see water transformed." https://mwrd.org/sites/default/files/2019-09/19_09xx_RepCasten_SWRP.pdf	U.S. Rep. Sean Casten (IL-6th)
Press Release	1		Oct. 25, 2019, "MWRD Sustainability Summit highlights green initiatives." https://mwrd.org/sites/default/files/2019- 10/19_06xx_Sustainability%20Summit%20PR.pdf	Various partners were featured as speakers and award winners, such as the Chicago Park District, North Shore Country Club in Glenview, Argonne National Laboratory's Decision and Infrastructure Sciences Division, Village of Buffalo Grove, Illinois Tollway, Omni Ecosystems and Waters Elementary School
Press Release	1		Nov. 20, 2019, "MWRD Road Show event at Von Steuben Metropolitan High School wraps up MWRD's 130th Anniversary celebration." https://mwrd.org/sites/default/files/2019-11/19_06xx_Von%20Steuben.pdf	Illinois State Sen. Laura Murphy (28th Dist.)
Press Release	1		Dec. 17, 2019, "MWRD's resource recovery work featured in global documentary." https://mwrd.org/sites/default/files/2019-12/19_06xx_Brave%20Blue%20World%20%28003%29.pdf	The Water Environment Federation



Description:	No. of Events	No. of Attendants (if applicable)	Description	Partnerships:
Publications				
Magazine/Newspaper/Media	1		June 17, 2019, "Illinois groups share water quality efforts in Utah," Farm Now: https://mwrd.org/illinois-groups-share-water-quality-efforts-utah-farm-now	Illinois Farm Bureau, Illinois Nutrient Research and Education Council, the Illinois Chapter of Sierra Club, and research partners at Southern Illinois University Carbondale, University of Illinois and Purdue University
	1		July 19, 2019, "Diverse team embraces 'Partners in Progress,"" Farm Week Now. https://mwrd.org/diverse-team-embraces- partners-progress-farm-week-now. Full story with video included: https://www.farmweeknow.com/environmental/diverse-team- embraces-partners-in-progress/article_b384700a-fce2-11e9-844b- 4f9b1bf5dafa.html Video only: https://vimeo.com/348652681/dd6c674c16	Illinois Farm Bureau (IFB), Fulton County Farm Bureau, Prairie Research Institute, Illinois Nutrient Research & Education Council and University of Illinois Extension
	1		Dec. 17, 2019, "Brave Blue World Documentary Film Premieres in Los Angeles," Water Environment Federation." https://mwrd.org/brave-blue-world-documentary-film-premieres-los-angeles-water-environment-federation	The Water Environment Federation
Other Activities:				
Tours	207	4,957	Guests tours of MWRD facilities, including 108 tours of the MWRD's Ostara nutrient recovery facility at Stickney Water Reclamation Plant for 1,959 visitors	
Social media followers		12,370	Facebook, Twitter, Instagram, YouTube and Linked-In	



### METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO Facility Nutrition Tracking (JANUARY - DECEMBER 2019)

Facility	NPDES Number	Nutrient Removal (Bio-P, Bio-N, None etc.)	DAF	Daily Avg. Flow	Total P In	Total P Out	Total P Out Annual Ave.	Total N In	Total N Out	Total N Out Annual Ave.	Watershed group (WS Group name or "No")	Comments (about data, and Capital Projects for Nutrients, what was done, \$ spent etc.)
				MGD	lb/yr	lb/yr	Annu. Ave (mg/L)	lb/yr	lb/yr	(mg/L)		
Stickney	IL0028053	Bio-P	1200	827	72,499,646		0.9	254,608,028		8.4	Chicago Area Waterways	Data was derived through District Maintenance and Operations Dept. routine sampling and Analytical Lab Division analyses; batteries were converted to an anoxic-anaerobic-oxic configuration for part of 2019; Ostara® process operating for P-recovery on post-digester centrate; installed actuators on air-valves for automation in summer 2018; currently accepting high strength organic material for carbon supplementation; P removal feasibility study was completed in mid 2019; received new draft NPDES permit for review in Summer 2019 and allows P trading with Lemont WRP.
Calumet	IL0028061	None	354	308	4,251,131	2,278,985	2.4	17,818,377	7,028,116	7.5	Chicago Area Waterways	Data was derived through District Maintenance and Operations Dept. routine sampling and Analytical Lab Division analyses; all batteries were converted to an anoxic-anaerobic-oxic configuration, but this practice was discontinued in mid 2018 and batteries reverted to full aerobic conditions; currently accepting high strength organic material for carbon supplementation (this practice is still occurring though no Bio-P configurations are in place); P removal feasibility study was completed in mid 2019; planning sidestream EBPR test in one battery in 2020.
Terrence J. O'Brien	IL0028088	None	333	258	2,510,813	971,964	1.3	18,058,428	7,925,112	10.2	Chicago Area Waterways	Data was derived through District Maintenance and Operations Dept. routine sampling and Analytical Lab Division analyses. Currently doing pilot scale testing of algae for nutrient removal; P removal feasibility study was completed in mid 2019.



### METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO Facility Nutrition Tracking (JANUARY - DECEMBER 2019)

		Nutrient Removal								Total N Out	Watershed group	
		(Bio-P, Bio-N,					Total P Out			Annual	(WS Group name or	Comments
Facility	NPDES Nun	None etc.)	DAF	aily Avg. Flo	Total P In	Total P Out	Annual Ave.	Total N In	Total N Out	Ave.	"No")	(about data, and Capital Projects for Nutrients, what was done, \$ spent etc.)
				MGD	lb/yr	lb/yr	Annu. Ave (mg/L)	lb/yr	lb/yr	(mg/L)		
James C. Kirie	IL0047741	Bio-P	52	43	453,564	52,639	0.4	3,218,852	1,047,536	7.2	Lower Des Plaines	Data was derived through District Maintenance and Operations Dept routine sampling and Analytical Lab Division analyses; one of two batteries converted to a quasi-anaerobic-oxic configuration (other plant battery is pass through); 2 of 6 tanks have baffle walls and large bubble mixers installed; P removal feasibility study completed in late 2018; joined the Lower Des Plaines Watershed Group in late 2018; received new draft NPDES permit for review in Summer 2019.
John E. Egan		Nitrogen removal on sidestream	30	28	460,519	219,942	2.7	2,555,834	1,274,120	15.4	DuPage River/Salt Creek Workgroup	Data was derived through District Maintenance and Operations Dept routine sampling and Analytical Lab Division analyses; no bio-P efforts completed thus far but possible approaches have been developed; Anita Mox process installed on post-digester centrate in August 2016 to reduce nitrogen loading at plant headworks; P removal feasibility study was completed in late 2018; received new draft NPDES permit for review in Summer 2019.
Hanover Park	IL0036137	None	12	10	124,505	69,306	2.6	864,251	474,117	17.5	DuPage River/Salt Creek Workgroup	Data was derived through District Maintenance and Operations Dept. routine sampling and Analytical Lab Division analyses; P removal feasibility study was completed in mid 2018; received new draft NPDES permit for review in Spring 2019.
Lemont	IL0028070	None	2.3	2.9	35,809	18,537	2.1	247,426	148,550	16.6	Lower Des Plaines	Data was derived through District Maintenance and Operations Dept. routine sampling and Analytical Lab Division analyses; P removal feasibility study was completed in mid 2018; joined the Lower Des Plaines Watershed Group in late 2018; received new draft NPDES permit for review in Summer 2019; new draft permit allows Stickney WRP to trade P with Lemont WRP.



#### NORTH SHORE WATER RECLAMATION DISTRICT Staff and Financial Resources (JANUARY - DECEMBER 2019)

Description:	Project Name	Dollars:
Capital Improvements (add rows if more than one)	ex. Equipment or Construction costs	
Operations and Maintenance (staff, materials and supplies for day to day nutrient work)		
Feasibility Studies or Permit Required Projects not already listed (add rows if more than one)	ex. West Facility Upgrade - Nutrient Assessment	
Staff (No. of staff hours in the year or FTEs & approx. \$ value) working on nutrient related matters		
Other Resources Invested (add more rows if needed)		



# NORTH SHORE WATER RECLAMATION DISTRICT Outreach and Communications (JANUARY - DECEMBER 2019)

Description:	No. of Events	No. of Attendants (if applicable)	Description	Partnerships:
Presentations, Conferences & Workshops (add rows as needed)				
Print or Media (add rows as needed)				
Other Activities:				



### NORTH SHORE WATER RECLAMATION DISTRICT Facility Nutrient Tracking (JANUARY - DECEMBER 2019)

Facility	NPDES Number	Nutrient Removal (Bio-P, Bio-N, None etc.)	DAF	Year	Daily Avg. Flow	Total P	Total P Out	Total P Out Annual Avg.	Total N In	Total N Out	Total N Out Annual Avg.	Watershed group (WS Group name or "No")	Comments (about data, and Capital Projects for Nutrients, what was done, \$ spent etc.)
			MGD		MGD	lb/yr	lb/yr	(mg/L)	lb/yr	lb/yr	(mg/L)		
NSWRD - Clavey Road WRF	IL0030171		17.8	2017	14.17	118,000	50,000	1.12	969,000	837,000	17.4	No	
				2018	15.26	135,000	44,400	0.95	1,139,000	794,000	17.7	North Branch Chicago River	
				2019	17.86	145,000	58,000	1.09	1,199,000	811,000	15.3	n	
				2020									
				2021									
				2022									
				2023									
				2024									
				2025									



### NORTH SHORE WATER RECLAMATION DISTRICT Facility Nutrient Tracking (JANUARY - DECEMBER 2019)

	NPDES	Nutrient Removal (Bio-P, Bio-N,		· ·	Daily Avg.	Total P	Total P	Total P Out		Total N	Total N Out Annual	Watershed group (WS Group name or	Comments (about data, and Capital Projects for Nutrients, what
Facility	Number	None etc.)	DAF	Year	Flow	In	Out	Annual Avg.			Avg.	"No")	was done, \$ spent etc.)
			MGD		MGD	lb/yr	lb/yr	(mg/L)	lb/yr	lb/yr	(mg/L)		
												Des Plaines River	
NSWRD - Gurnee WRF	IL0035092		23.6	2017	15.23	187,000	73,700	1.57	1,390,000	1,020,000	23.3	(DRWW)	
				2018	15.41	202,000	52,700	1.11	1,760,000	912,000	20.1	11	
				2019	16.40	240,000	65,900	1.35	1,731,000	897,000	18.3	"	
				2020									
				2021									
				2022									
				2023									
				2024									
				2025									



### NORTH SHORE WATER RECLAMATION DISTRICT Facility Nutrient Tracking (JANUARY - DECEMBER 2019)

	NPDES	Nutrient Removal (Bio-P, Bio-N, None etc.)	DAF	Year	Daily Avg. Flow	Total P	Total P Out	Total P Out Annual Avg.	Total N In	Total N	Total N Out Annual Avg.	Watershed group (WS Group name or "No")	Comments (about data, and Capital Projects for Nutrients, what was done, \$ spent etc.)
			MGD		MGD	lb/yr	lb/yr	(mg/L)	lb/yr	lb/yr	(mg/L)		
NSWRD - Gurnee												Des Plaines River	
WRF	IL0030244		22.0	2017	21.67	180,000	85,400	1.26	1,630,000	1,110,000	16.8	(DRWW)	
				2018	23.38	250,000	46,300	0.67	1,910,000	1,080,000	16.0	ш	
				2019	25.67	255,000	64,100	0.84	1,914,000	1,159,000	15.2	ш	



# SANGAMON COUNTY WATER RECLAMATION DISTRICT Staff and Financial Resources (JANUARY - DECEMBER 2019)

Description:	Project Name	Dollars:
Capital Improvements (add rows if more than one)		
Operations and Maintenance (staff, materials and supplies for day to day nutrient work)		
Feasibility Studies or Permit Required Projects not already listed (add rows if more than one)	Spring Creek Facility - Three phased Phosphorous Reduction Study. Pilot Tertiary Filtration Study.	Approximately \$60,000.00 (Chemicals, Pilot Unit Rental, Engineering, Analysis, Manpower)
Staff (No. of staff hours in the year or FTEs & approx. \$ value) working on nutrient related matters		
Other Resources Invested (add more rows if needed)		



# SANGAMON COUNTY WATER RECLAMATION DISTRICT Outreach and Communications (JANUARY - DECEMBER 2019)

Description:	No. of Events	No. of Attendants (if applicable)	Description	Partnerships:
Presentations, Conferences & Workshops (add rows as needed)				
Print or Media (add rows as needed)				
Other Activities:				



# SANGAMON COUNTY WATER RECLAMATION DISTRICT Facility Nutrient Tracking (JANUARY - DECEMBER 2019)

		la											
		Nutrient Removal									Total N Out	Watershed group	Comments
	NPDES	(Bio-P, Bio-N, None			Daily	Total P	Total P	Total P Out		Total N	Annual	(WS Group name or	(about data, and Capital Projects for
Facility	Number	etc.)	DAF	Year	Avg. Flow	In	Out	Annual Avg.	Total N In	Out	Avg.	"No")	Nutrients, what was done, \$ spent etc.)
			MGD		MGD	lb/yr	lb/yr	(mg/L)	lb/yr	lb/yr	(mg/L)		
SCWRD Spring		Biological Nutrient											
Creek Facility	IL0021989	Removal	32	2017	29.11	325,212	54,941	0.61	1,577,325	850,692	9.6	Sangamon Watershed	
		(Mainly Bio-P)		2018	34.98	340,744	51,112	0.48	1,693,074	1,075,474	10.1		
				2019	35.60	254,669	53,101	0.49	1,040,352	856,123	7.9		
				2020									
				2021									
				2022									
				2023									
				2024									
				2025									



# SANGAMON COUNTY WATER RECLAMATION DISTRICT Facility Nutrient Tracking (JANUARY - DECEMBER 2019)

Facility	NPDES Number	Nutrient Removal (Bio-P, Bio-N, None etc.)	DAF	Year	Daily Avg. Flow	Total P In	Total P Out	Total P Out Annual Avg.		Total N	Total N Out Annual Avg.	Watershed group (WS Group name or "No")	Comments (about data, and Capital Projects for Nutrients, what was done, \$ spent etc.)
			MGD		MGD	lb/yr	lb/yr	(mg/L)	lb/yr	lb/yr	(mg/L)		
SCWRD Sugar		Biological Nutrient											
Creek Facility	IL0021971	Removal	15	2017	10.03	105,031	31,448	1.03	491,570	332,802	10.9	Sangamon Watershed	New Facility Start up in May, 2017
		(Mainly Bio-P)		2018	8.99	62,943	16,420	0.60	446,073	202,512	7.4		
				2019	13.05	83,026	19,465	0.49	385,337	218,490	5.5		
				2020									
				2021									
				2022									
				2023									
				2024									
				2025								_	



#### WHEATON SANITARY DISTRICT Staff and Financial Resources (JANUARY - DECEMBER 2019)

Description:	Project Name	Dollars:
Capital Improvements (add rows if more than one)		
Operations and Maintenance (staff, materials and supplies for day to day nutrient work)		
Feasibility Studies or Permit Required Projects not already listed (add rows if more than one)	ex. West Facility Upgrade - Nutrient Assessment	
Staff (No. of staff hours in the year or FTEs & approx. \$ value) working on nutrient related matters		
Other Resources Invested (add more rows if needed)		



#### WHEATON SANITARY DISTRICT Outreach and Communications (JANUARY - DECEMBER 2019)

Description:	No. of Events	No. of Attendants (if applicable)	Description	Partnerships:
Presentations, Conferences & Workshops (add rows as needed)				
Print or Media (add rows as needed)			P-Educational flyer on our website	
Other Activities:			Engaged DuPage county in a Spring Brook Creek stream stabilization project that runs through our plant	



#### WHEATON SANITARY DISTRICT Facility Nutrient Tracking (JANUARY - DECEMBER 2019)

		Nutrient Removal									<b>Total N Out</b>	Watershed group	Comments
	NPDES	(Bio-P, Bio-N, None			Daily Avg.	Total P	Total P	Total P Out	Total N	Total N	Annual	(WS Group name or	(about data, and Capital Projects for
Facility	Number	etc.)	DAF	Year	Flow	In	Out	Annual Avg.	In	Out	Avg.	"No")	Nutrients, what was done, \$ spent etc.)
			MGD		MGD	lb/yr	lb/yr	(mg/L)	lb/yr	lb/yr	(mg/L)		
												DuPage River Salt Creek	\$106000 wkgp projects, P opt & feasibility
Facility No. 1	IL0031739	none	8.9	2017	8.03	70,817	46,738	2.44	688,197	373,683	21.75	Wkgp(DRSCW)	\$123,500
				2018	8.1	75,873	42,417	2.39	589,957	349,885	19.23	DRSCW	\$165000 wkgp
				2019	9.21	72,653	49,633	2.03	631,238	422,820	17.14	DRSCW	\$170000 wkgp
				2020									
				2021									
				2022									
				2023									
				2024									
				2025									



# BLOOMINGTON & NORMAL WATER RECLAMATION DISTRICT Staff and Financial Resources (JANUARY - DECEMBER 2020)

Description:	Program (if applicable):	Dollars/Number of Staff:
Grants or Loans Received		
Grants Given		
Funded Programs/Opportunities (e.g cost shares sponsored by your organization such as rain barrel rebates, stormwater utility fee incentives, etc.)		
Capital Improvements (add rows if more than one)		
Operations and Maintenance (staff, materials and supplies for day to day nutrient work)		
Feasibility Studies or Permit Required Projects not already listed (add rows if more than one)	Long Range Planning	\$3,056.23
Total Staff working on NLRS activities (in any capacity)  No. of staff hours in the year or FTEs & approx. \$ value) working on nutrient related matters		
Other Resources Invested (add more rows if needed)		



# BLOOMINGTON & NORMAL WATER RECLAMATION DISTRICT Outreach and Communications (JANUARY - DECEMBER 2020)

	Name:	Attendance (Includes Virtual Events) and Target Audience (general public/homeowner or professional staff):	Topics Covered:	Partnerships (Optional: clarify if partner is co-sponsor or attendee at event):	Response/ Feedback:
Field Days: Includes learning activities sponsored at demonstration farms, water treatment plants, and green infrastructure					
Presentations: Include any presentations your organization has given to general public/homeowners, stormwater professionals, and stakeholders at conferences, community groups, and other venues. Typically < 2 hours. (Please do not include presentations that were only attended.)					
Conferences: Include conferences that your organization has sponsored. (Please do not include conferences you have attended; if someone from your organizations has given a presentation at a conference, please record it above in "Presentations.")					
Educational Events/Workshops/Trainings: Technical Assistance in Implementing BMPs / Funded					
Funded Research: Awards/Recognition Activities:					



# BLOOMINGTON & NORMAL WATER RECLAMATION DISTRICT Outreach and Communications (JANUARY - DECEMBER 2020)

Description (add rows as needed):	Name:	Reach/Impact/Downloads:	Topics Covered:	Inarther is co-sponsor or attendee	Response/ Feedback:
Print or Media:					
Outreach Tools/Publications:					
Radio, Television, and Podcasts:					
Social Media:					
Newsletters:					
Surveys:					
Additional Activities:					



# BLOOMINGTON & NORMAL WATER RECLAMATION DISTRICT Facility Nutrient Tracking (JANUARY - DECEMBER 2020)

		Nutrient Removal						Total P Out			Total N Out	Watershed group	Comments
	NPDES	(Bio-P, Bio-N,			Daily Avg.	Total P	Total P	Annual	Total N	Total N	Annual	(WS Group name	(about data, and Capital Projects for
Facility	Number	None etc.)	DAF	Year	Flow	In	Out	Avg.	In	Out	Avg.	or "No")	Nutrients, what was done, \$ spent etc.)
-		-	MGD		MGD	lb/yr	lb/yr	(mg/L)	lb/yr	lb/yr	(mg/L)		
Facility No. 1	IL0027731	None	22.5	2017	15.1	177,755	101,470	2.49		819,790	18.90	No	Design Engineering \$102,003
	IL0027731	None	22.5	2018	15.7	166 331	101,236	2.42		779,275	19.80	No	TN concentration is measured 1 day/month as per permit requirements
	IL0027731		22.5	2019	20.67	163,885	95,995	1.78		821,980	13.76	No	TN concentration is measured 1 day/month as per permit requirements
							-						TN concentration is measured 1 day/month
	IL0027731	None	22.5	2020	18.31	160,965	96,360	2.18		762,120	17.89	No	as per permit requirements
		<b>Nutrient Removal</b>						Total P Out			Total N Out	Watershed group	Comments
	NPDES	(Bio-P, Bio-N,			Daily Avg.	Total P	Total P	Annual	Total N	Total N	Annual	(WS Group name	(about data, and Capital Projects for
Facility	Number	None etc.)	DAF	Year	Flow	In	Out	Avg.	In	Out	Avg.	or "No")	Nutrients, what was done, \$ spent etc.)
			MGD		MGD	lb/yr	lb/yr	(mg/L)	lb/yr	lb/yr	(mg/L)		
Facility No. 2	IL0073504	None	7.5	2017	3.8	60,955	43,263	3.74		257,957	22.30	No	Design Engineering \$92,731 Upgrade \$1080
	IL0073504	None	7.5	2018	4.09	60,910	40,442	3.63		245,645	21.34	No	
	IL0073504	None	7.5	2019	5.07	62,050	39,420	3.02		275,406	19.81	No	
	IL0073504	None	7.5	2020	4.57	61,906	34,744	3.11		236,172	21.14	No	



#### DANVILLE SANITARY DISTRICT Staff and Financial Resources (JANUARY - DECEMBER 2020)

Description:	Program (if applicable):	Dollars/Number of Staff:
Grants or Loans Received		
Grants Given		
Funded Programs/Opportunities (e.g cost shares sponsored by your organization such as rain barrel rebates, stormwater utility fee incentives, etc.)		
Capital Improvements (add rows if more than one)		
Operations and Maintenance (staff, materials and supplies for day to day nutrient work)		
Feasibility Studies or Permit Required Projects not already listed (add rows if more than one)		
Total Staff working on NLRS activities (in any capacity)  No. of staff hours in the year or FTEs & approx. \$ value) working on nutrient related matters		
Other Resources Invested (add more rows if needed)		



#### DANVILLE SANITARY DISTRICT Outreach and Communications (JANUARY - DECEMBER 2020)

Description (add rows as needed):	Name:	Attendance (Includes Virtual Events) and Target Audience (general public/homeowner or professional staff):	Tonics Covered:	Partnerships (Optional: clarify if partner is co- sponsor or attendee at event):	Response/Feedback:
Field Days: Includes learning activities sponsored at demonstration farms, water treatment plants, and green infrastructure					
Presentations: Include any presentations your organization has given to general public/homeowners, stormwater professionals, and stakeholders at conferences, community groups, and other venues. Typically < 2 hours. (Please do not include presentations that were only attended.)					
Conferences: Include conferences that your organization has sponsored. (Please do not include conferences you have attended; if someone from your organizations has given a presentation at a conference, please record it above in "Presentations.")					
Educational Events/Workshops/Trainings:					
Technical Assistance in Implementing BMPs / Funded					
Funded Research: Awards/Recognition Activities:					



#### DANVILLE SANITARY DISTRICT Outreach and Communications (JANUARY - DECEMBER 2020)

Description (add rows as needed):	Name:	Reach/Impact/Downloads:	Topics Covered:	Inartner is co-sponsor or attendee	Response/ Feedback:
Print or Media:					
Outreach Tools/Publications:					
Radio, Television, and Podcasts:					
Social Media:					
Newsletters:					
Surveys:					
Additional Activities:					



#### DANVILLE SANITARY DISTRICT Facility Nutrient Tracking (JANUARY - DECEMBER 2020)

			<b>Nutrient Removal</b>									<b>Total N Out</b>		Comments
		NPDES	(Bio-P, Bio-N,			Daily Avg.	Total P	Total P	Total P Out	Total N	Total N	Annual	Watershed group	(about data, and Capital Projects for
Fa	cility	Number	None etc.)	DAF	Year	Flow	In	Out	Annual Avg.	In	Out	Avg.	(WS Group name or "No")	Nutrients, what was done, \$ spent etc.)
				MGD		MGD	lb/yr	lb/yr	(mg/L)	lb/yr	lb/yr	(mg/L)		
													Salt Fork Watershed Implementation Committee	
D:	SD	IL0020788	none	16	2020	8.95	45,260	17,315	0.69		11,369		•	Implementing AO activated sludge process



### DOWNERS GROVE SANITARY DISTRICT Staff and Financial Resources (JANUARY - DECEMBER 2020)

Description:	Program (if applicable):	Dollars/Number of Staff:
Grants or Loans Received		
Grants Given		
Funded Programs/Opportunities (e.g cost shares sponsored by your organization such as rain barrel rebates, stormwater utility fee incentives, etc.)		
Capital Improvements (add rows if more than one)	Connect 2nd RAS system to sidestream process	\$25,000 plus 2 employees for a total of 32 hours
Operations and Maintenance (staff, materials and supplies for day to day nutrient work)	Service contract for maintaining the on-line phosphorus analyzer	\$6,000
Feasibility Studies or Permit Required Projects not already listed (add rows if more than one)		
Total Staff working on NLRS activities (in any capacity) No. of staff hours in the year or FTEs & approx. \$ value) working on nutrient related matters	General Manager time, roughly 10% of hours for period	\$15,000
Other Resources Invested (add more rows if needed)		



#### DOWNERS GROVE SANITARY DISTRICT Outreach and Communications (JANUARY - DECEMBER 2020)

Description (add rows as needed):	Name:	Attendance (Includes Virtual Events) and Target Audience (general public/homeowner or professional staff):	Topics Covered:	Partnerships (Optional: clarify if partner is co-sponsor or attendee at event):	Response/Feedback:
Field Days: Includes learning activities sponsored at demonstration farms, water treatment plants, and green infrastructure					
Presentations: Include any presentations your organization has given to general public/homeowners, stormwater professionals, and stakeholders at conferences, community groups, and other venues. Typically < 2 hours. (Please do not include presentations that were only attended.)					
Conferences: Include conferences that your organization has sponsored. (Please do not include conferences you have attended; if someone from your organizations has given a presentation at a conference, please record it above in "Presentations.")					
Educational Events/Workshops/Trainings:					
Technical Assistance in Implementing BMPs / Funded Funded Research:					
Awards/Recognition Activities:					



#### DOWNERS GROVE SANITARY DISTRICT Outreach and Communications (JANUARY - DECEMBER 2020)

Description (add rows as needed):	Name:	Reach/Impact/Downloads:	Topics Covered:	partner is co-sponsor or attendee	Response/ Feedback:
Print or Media:					
Outreach Tools/Publications:					
Radio, Television, and Podcasts:					
Social Media:					
Newsletters:					
Surveys:					
Additional Activities:					



#### DOWNERS GROVE SANITARY DISTRICT Facility Nutrient Tracking (JANUARY - DECEMBER 2020)

		<b>Nutrient Removal</b>						Total P Out				Watershed group	Comments
	NPDES	(Bio-P, Bio-N, None			Daily Avg.	Total P	Total P	Annual	Total N	Total N	Total N Out	(WS Group name	(about data, and Capital Projects for Nutrients, what
Facility	Number	etc.)	DAF	Year	Flow	In	Out	Avg.	In	Out	Annual Avg.	or "No")	was done, \$ spent etc.)
			MGD		MGD	lb/yr	lb/yr	(mg/L)	lb/yr	lb/yr	(mg/L)		
Wastewater													Operated sidestream RAS anerobic tank in attempt to get BNR. Used primary sludge and hauled sugar waste for process carbon additions. The amount of hauled sugar waste available decreased from 2019, likely due to the pandemic. At the beginning of the year, an attempt to improve BNR by sending more RAS through the sidestream process resulted in decreased
Treatment		PDOP - attempting										· ·	nitrification in March; prior operation was resumed as
Center	IL0028380	BNR	11	2020	11.08	153,041	83,554	2.9	963,223	539,253	18.1	Creek Workgroup	a result.



#### FLAGG CREEK WATER RECLAMATION DISTRICT Staff and Financial Resources (JANUARY - DECEMBER 2020)

Description:	Program (if applicable):	Dollars/Number of Staff:
Grants or Loans Received		
Grants Given		
Funded Programs/Opportunities (e.g cost shares sponsored by your organization such as rain barrel rebates, stormwater utility fee incentives, etc.)		
Capital Improvements (add rows if more than one)		
Operations and Maintenance (staff, materials and supplies for day to day nutrient work)		
Feasibility Studies or Permit Required Projects not already listed (add rows if more than one)		
Total Staff working on NLRS activities (in any capacity)  No. of staff hours in the year or FTEs & approx. \$ value) working on nutrient related matters		
Other Resources Invested (add more rows if needed)		



# FLAGG CREEK WATER RECLAMATION DISTRICT Outreach and Communications (JANUARY - DECEMBER 2020)

Description (add rows as needed):	Name:	Attendance (Includes Virtual Events) and Target Audience (general public/homeowner or professional staff):	Topics Covered:	Partnerships (Optional: clarify if partner is co-sponsor or attendee at event):	Response/Feedback:
Field Days: Includes learning activities sponsored at demonstration farms, water treatment plants, and green infrastructure					
Presentations: Include any presentations your organization has given to general public/homeowners, stormwater professionals, and stakeholders at conferences, community groups, and other venues. Typically < 2 hours. (Please do not include presentations that were only attended.)					
Conferences: Include conferences that your organization has sponsored. (Please do not include conferences you have attended; if someone from your organizations has given a presentation at a conference, please record it above in "Presentations.")					
Educational Events/Workshops/Trainings: Technical Assistance in Implementing BMPs / Funded					
Funded Research: Awards/Recognition Activities:					



# FLAGG CREEK WATER RECLAMATION DISTRICT Outreach and Communications (JANUARY - DECEMBER 2020)

Description (add rows as needed):	Name:	Reach/Impact/Downloads:	Topics Covered:	partner is co-sponsor or attendee	Response/ Feedback:
Print or Media:					
Outreach Tools/Publications:					
Radio, Television, and Podcasts:					
Social Media:					
Newsletters:					
Surveys:					
Additional Activities:					



#### FLAGG CREEK WATER RECLAMATION DISTRICT Facility Nutrient Tracking (JANUARY - DECEMBER 2020)

		Nutrient Removal									<b>Total N Out</b>	Watershed group	Comments
	NPDES	(Bio-P, Bio-N, None			Daily Avg.	Total P	Total P	Total P Out	Total N	Total N	Annual	(WS Group name or	(about data, and Capital Projects for Nutrients,
Facility	Number	etc.)	DAF	Year	Flow	In	Out	Annual Avg.	In*	Out	Avg.	"No")	what was done, \$ spent etc.)
			MGD		MGD	lb/yr	lb/yr	(mg/L)	lb/yr	lb/yr	(mg/L)		
													* TN tested on effluent only/ TN in = NH3
Facility No. 1	IL0022586	none	12	2017	12.35	106,740	76,980	2.2	643,630	702,940	18.7	No	
Facility No. 1	IL0022586	none	12	2018	12.99	111,240	66,140	1.9	564,710	719,500	19.7	No	
Facility No. 1	IL0022586	none(Jan-Jul)/Chem- P(Aug-Dec)	12	2019	15.98	108,200	54,040	1.2	517,112	858,902	18.4	No	TP out loading (approx): Jan-Jul = 1,200, Aug- Dec = 500
Facility No. 1	IL0022586	none(Jan-Jul)/Chem- P(Aug-Dec)	12	2020	11.5	97,440	31,230	1	443,000	618,190	19	No	
				2021									
				2022									
				2023									
				2024									
				2025									



#### FOX METRO WATER RECLAMATION DISTRICT Staff and Financial Resources (JANUARY - DECEMBER 2020)

Description:	Program (if applicable):	Dollars/Number of Staff:
Grants or Loans Received		
Grants Given		
Funded Programs/Opportunities (e.g cost shares sponsored by your organization such as rain barrel rebates, stormwater utility fee incentives, etc.)		
Capital Improvements (add rows if more than one)	Construction completed for Bio-P removal	\$100,000,000
Operations and Maintenance (staff, materials and supplies for day to day nutrient work)		
Feasibility Studies or Permit Required Projects not already listed (add rows if more than one)	Phosphorus discharge optimization progress report submitted	
Total Staff working on NLRS activities (in any capacity)  No. of staff hours in the year or FTEs & approx. \$ value) working on nutrient related matters		
Other Resources Invested (add more rows if needed)	Fox River Study Group expenses	\$57,645



#### FOX METRO WATER RECLAMATION DISTRICT Outreach and Communications (JANUARY - DECEMBER 2020)

Description (add rows as needed):	Name:	Attendance (Includes Virtual Events) and Target Audience (general public/homeowner or professional staff):	Topics Covered:	Partnerships (Optional: clarify if partner is co-sponsor or attendee at event):	Response/Feedback:
Field Days: Includes learning activities sponsored at demonstration farms, water treatment plants, and green infrastructure tours.	Aurora University STEM event		Lab testing for nutrients and other parameters.		
Awards/Recognition Activities: Include any awards and recognitions your organization has given for nutrient loss reduction practices. Also, include any awards or recognitions that your organization might have received for its nutrient loss practices.	APWA award		Project of the year award for the bio-p construction.		
Social Media: Include posts about nutrient loss reduction strategies made on official organization accounts (e.g. Twitter, Facebook, Instagram). High-level summary preferred, including level of account activity and frequency of posting NLRS content.	Facebook page				



#### FOX METRO WATER RECLAMATION DISTRICT Facility Nutrient Tracking (JANUARY - DECEMBER 2020)

	NPDES	Nutrient Removal (Bio-P, Bio-N, None etc.)	DAF	Year	Daily Avg. Flow	Total P In		Total P Out Annual Avg.	Total N In	Total N Out	Total N Out Annual Avg.	Watershed group (WS Group name or "No")	Comments (about data, and Capital Projects for Nutrients, what was done, \$ spent etc.)
			MGD		MGD	lb/yr	lb/yr	(mg/L)	lb/yr	lb/yr	(mg/L)		
Fox Metro Water Reclamation	IL0020818		42	2020	35.57	394,200	87,600	0.74	2,781,300	1,642,500	16.30	Fox River Study Group	
	erage phosph effective Jun	orus limit of 1 mg/L be e 1st, 2021	comes										



#### FOX RIVER WATER RECLAMATION DISTRICT Staff and Financial Resources (JANUARY - DECEMBER 2020)

Description:	Program (if applicable):	Dollars/Number of Staff:
Grants or Loans Received		
Grants Given		
Funded Programs/Opportunities (e.g cost shares sponsored by your organization such as rain barrel rebates, stormwater utility fee incentives, etc.)		
Capital Improvements (add rows if more than one)	Albin D. Pagorski WRF Phosphorus Removal Improvements -Liquid Process Facilities	5,093,098
	Albin D. Pagorski WRF Phosphorus Removal Improvements -Struvite Facilities	6,621,959
	North WRF Phosphorus Removal Improvements	16,547,129
Operations and Maintenance (staff, materials and supplies for day to day nutrient work)	Operations at West WRF, P removal enhancement chemical	80,000
Feasibility Studies or Permit Required Projects not already listed (add rows if more than one)		
Total Staff working on NLRS activities (in any capacity)  No. of staff hours in the year or FTEs & approx. \$ value) working on nutrient related matters	Overseeing Design and Construction Activities and O&M Support for Construction Shutdowns	2.0 FTE, \$207,000
Other Resources Invested (add more rows if needed)		



#### FOX RIVER WATER RECLAMATION DISTRICT Outreach and Communications (JANUARY - DECEMBER 2020)

Description:	INO. Of Events	No. of Attendants (if applicable)	Description	Partnerships:
Presentations, Conferences & Workshops (add rows as needed)				
Print or Media (add rows as needed)				
Other Activities:				



#### FOX RIVER WATER RECLAMATION DISTRICT Facility Nutrient Tracking (JANUARY - DECEMBER 2020)

Facility	NPDES Number	Nutrient Removal (Bio-P, Bio-N, None etc.)	DAF	Year	Daily Avg. Flow	Total P In	Total P Out	Total P Out Annual Avg.	Total N In	Total N Out	Total N Out Annual Avg.	Watershed group (WS Group name or "No")	Comments (about data, and Capital Projects for Nutrients, what was done, \$ spent etc.)
			MGD		MGD	lb/yr	lb/yr	(mg/L)	lb/yr	lb/yr	(mg/L)		
Albin D. Pagorski	U 0020CE7	Name	25	2017	47.45	402.000	445,000	2.00	4 245 000	4 226 000	26.4	For Pierry Street, Consum	
WRF	IL0028657	None	25	2017	17.15 19.14	193,000 284,000		3.06	1,315,000 1,742,000			Fox River Study Group  Fox River Study Group	
				2019	20.04	302,000	176,000	3.12	1,760,000	1,422,000	23.3	Fox River Study Group	
				2020	15.95	247,000	164,000	3.36	1,436,000	1,218,000	25.0	Fox River Study Group	
				2021									
				2022									
				2023									
				2024									
				2025									



### FOX RIVER WATER RECLAMATION DISTRICT Facility Nutrient Tracking (JANUARY - DECEMBER 2020)

Facility	NPDES	Nutrient Removal (Bio-P, Bio-N, None etc.)	DAF	Year	Daily Avg. Flow	Total P In	Total P Out	Total P Out Annual Avg.	Total N In	Total N Out	Total N Out Annual Avg.	Watershed group (WS Group name or "No")	Comments (about data, and Capital Projects for Nutrients, what was done, \$ spent etc.)
			MGD		MGD	lb/yr	lb/yr	(mg/L)	lb/yr	lb/yr	(mg/L)		
North WRF	IL0028665	None	7.75	2017	4.97	51,000	32,200	2.13	351,000	197,100	13.0	Fox River Study Group	
				2018	4.81	46,000	28,500	1.95	356,000	193,000	13.2	Fox River Study Group	
				2019	5.09	51,300	27,100	1.75	385,000	185,000	11.9	Fox River Study Group	
				2020	4.60	51,000	29,100	2.07	383,000	199,000	14.1	Fox River Study Group	
				2021									
				2022									
				2023									
				2024									
				2025									



### FOX RIVER WATER RECLAMATION DISTRICT Facility Nutrient Tracking (JANUARY - DECEMBER 2020)

Facility	NPDES Number	Nutrient Removal (Bio-P, Bio-N, None etc.)	<b>DAF</b>	Year	Daily Avg. Flow MGD	Total P In Ib/yr	Total P Out	Total P Out Annual Avg. (mg/L)	Total N In	Total N Out	Total N Out Annual Avg. (mg/L)	Watershed group (WS Group name or "No")	Comments (about data, and Capital Projects for Nutrients, what was done, \$ spent etc.)
		Bio-N, 5-stage											
West WRF	IL0035891	Bardenpho	5.0	2017	3.53	51,600	7,740 8,920	0.72	360,000 589,000	91,700	8.53 12.0	Fox River Study Group  Fox River Study Group	
				2019	3.80	49,900	11,600	1.00	481,000	141,000	12.2	Fox River Study Group	
				2020	3.70	57,800	4,630	0.41	604,000	137,000	12.1	Fox River Study Group	
				2021									
				2022									
				2023									
				2024									
				2025									



### GLENBARD WASTEWATER AUTHORITY Staff and Financial Resources (JANUARY - DECEMBER 2020)

Description:	Program (if applicable):	Dollars/Number of Staff:
Grants or Loans Received		
Grants Given		
Funded Programs/Opportunities (e.g cost shares sponsored by your organization such as rain barrel rebates, stormwater utility fee incentives, etc.)		
Capital Improvements (add rows if more than one)	DuPage River Salt Creek Special Conditions Assessment	\$265,000.00
Operations and Maintenance (staff, materials and supplies for day to day nutrient work)	DuPage River Salt Creek Workgroup Membership	\$33,600.00
Feasibility Studies or Permit Required Projects not already listed (add rows if more than one)		
Total Staff working on NLRS activities (in any capacity)  No. of staff hours in the year or FTEs & approx. \$ value) working on nutrient related matters	average of 2 staff attending IAWA and workgroup meetings	\$4,000
Other Resources Invested (add more rows if needed)		



### GLENBARD WASTEWATER AUTHORITY Outreach and Communications (JANUARY - DECEMBER 2020)

Description (add rows as needed):	Name:	Attendance (Includes Virtual Events) and Target Audience (general public/homeowner or professional staff):	Topics Covered:	Partnerships (Optional: clarify if partner is co-sponsor or attendee at event):	Response/Feedback:
Field Days: Includes learning activities sponsored at demonstration farms, water treatment plants, and green infrastructure					
Presentations: Include any presentations your organization has given to general public/homeowners, stormwater professionals, and stakeholders at conferences, community groups, and other venues. Typically < 2 hours. (Please do not include presentations that were only attended.)					
Conferences: Include conferences that your organization has sponsored. (Please do not include conferences you have attended; if someone from your organizations has given a presentation at a conference, please record it above in "Presentations.")					
Educational Events/Workshops/Trainings:					
Technical Assistance in Implementing BMPs / Funded Funded Research:					
Awards/Recognition Activities:					



### GLENBARD WASTEWATER AUTHORITY Outreach and Communications (JANUARY - DECEMBER 2020)

Description (add rows as needed):	Name:	Reach/Impact/Downloads:	Topics Covered:	Inarther is co-sponsor or attendee	Response/ Feedback:
Print or Media:					
Outreach Tools/Publications:					
Radio, Television, and Podcasts:					
Social Media:					
Newsletters:					
Surveys:					
Additional Activities:					



### GLENBARD WASTEWATER AUTHORITY Facility Nutrient Tracking (JANUARY - DECEMBER 2020)

		Nutrient Removal										Watershed group	Comments (about data, and Capital Projects for
	NPDES	(Bio-P, Bio-N,			Daily Avg.	Total P	Total P	Total P Out	Total N	Total N	Total N Out	(WS Group name or	Nutrients, what was done, \$ spent
Facility	Number	None etc.)	DAF	Year	Flow	In	Out	Annual Avg.	In	Out	Annual Avg.	"No")	etc.)
			MGD		MGD	lb/yr	lb/yr	(mg/L)	lb/yr	lb/yr	(mg/L)		
													Participation in workgroup assessments
													that go towards adaptive management
													and other watershed improvements to
Glenbard Wastewater												DuPage River Salt	remove impairments (either caused by
Authority Main Plant	IL0021547	None	16 (permitted)	2020	11.91	210,280	93,176	2.57	1,171,044	933,935	25.76	Creek Workgroup	nutrients or not)
			N/A (wet										Participation in workgroup assessments
			weather plant)										that go towards adaptive management
Glenbard Wastewater			58 Peak										and other watershed improvements to
Authority Combined												DuPage River Salt	remove impairments (either caused by
Sewer Outfall	IL0022471	None		2020	N/A	N/A	1,697	0.72	N/A	N/A	N/A	Creek Workgroup	nutrients or not)



### GREATER PEORIA SANITARY DISTRICT Staff and Financial Resources (JANUARY - DECEMBER 2020)

Description:	Program (if applicable):	Dollars/Number of Staff:
Grants or Loans Received		
Grants Given		
Funded Programs/Opportunities (e.g cost shares sponsored by your organization such as rain barrel rebates, stormwater utility fee incentives, etc.)		
Capital Improvements (add rows if more than one)		
Operations and Maintenance (staff, materials and supplies for day to day nutrient work)		
Feasibility Studies or Permit Required Projects not already listed (add rows if more than one)		
Total Staff working on NLRS activities (in any capacity)  No. of staff hours in the year or FTEs & approx. \$ value) working on nutrient related matters		
Other Resources Invested (add more rows if needed)		



### GREATER PEORIA SANITARY DISTRICT Outreach and Communications (JANUARY - DECEMBER 2020)

Description (add rows as needed):	Name:	Attendance (Includes Virtual Events) and Target Audience (general public/homeowner or professional staff):	Topics Covered:	Partnerships (Optional: clarify if partner is co-sponsor or attendee at event):	Response/Feedback:
Field Days: Includes learning activities sponsored at demonstration farms, water treatment plants, and green infrastructure					
Presentations: Include any presentations your organization has given to general public/homeowners, stormwater professionals, and stakeholders at conferences, community groups, and other venues. Typically < 2 hours. (Please do not include presentations that were only attended.)					
Conferences: Include conferences that your organization has sponsored. (Please do not include conferences you have attended; if someone from your organizations has given a presentation at a conference, please record it above in "Presentations.")	1				
Educational Events/Workshops/Trainings:					
Technical Assistance in Implementing BMPs / Funded Funded Research:					
Awards/Recognition Activities:					



### GREATER PEORIA SANITARY DISTRICT Outreach and Communications (JANUARY - DECEMBER 2020)

Description (add rows as needed):	Name:	Reach/Impact/Downloads:	Topics Covered:	partner is co-sponsor or attendee	Response/ Feedback:
Print or Media:					
Outreach Tools/Publications:					
Radio, Television, and Podcasts:					
Social Media:					
Newsletters:					
Surveys:					
Additional Activities:					



### GREATER PEORIA SANITARY DISTRICT Facility Nutrient Tracking (JANUARY - DECEMBER 2020)

	NPDES	Nutrient Removal (Bio-P, Bio-N, None etc.)	DAF	Year	Daily Avg. Flow	Total P In	Total P Out	Total P Out Annual Avg.		Total N Out	Total N Out Annual Avg.	Watershed group (WS Group name or "No")	Comments (about data, and Capital Projects for Nutrients, what was done, \$ spent etc.)
			MGD		MGD	lb/yr	lb/yr	(mg/L)	lb/yr	lb/yr	(mg/L)		
Greater Peoria		Die Dand Die N	27	2020	25.2	216 000	61.600	0.80	2 225 000	221 000	4.20	No	
Sanitary Dist.	IL0021288	Bio-P and Bio-N	37	2020	25.3	316,000	61,600	0.80	2,335,000	331,000	4.30	No	



### KISHWAUKEE WATER RECLAMATION DISTRICT Staff and Financial Resources (JANUARY - DECEMBER 2020)

Description:	Program (if applicable):	Dollars/Number of Staff:
Grants or Loans Received		
Grants Given		
Funded Programs/Opportunities (e.g cost shares sponsored by your organization such as rain barrel rebates, stormwater utility fee incentives, etc.)		
Capital Improvements (add rows if more than one)	Ph. 1B Biological Improvements Project	\$51 Million (2017 through current)
Operations and Maintenance (staff, materials and supplies for day to day nutrient work)		
Feasibility Studies or Permit Required Projects not already listed (add rows if more than one)		
Total Staff working on NLRS activities (in any capacity) No. of staff hours in the year or FTEs & approx. \$ value) working on nutrient related matters		
Other Resources Invested (add more rows if needed)		



## KISHWAUKEE WATER RECLAMATION DISTRICT Outreach and Communications (JANUARY - DECEMBER 2020)

,					
Description (add rows as needed):	Name:	Attendance (Includes Virtual Events) and Target Audience (general public/homeowner or professional staff):	Topics Covered:	Partnerships (Optional: clarify if partner is co-sponsor or attendee at event):	Response/Feedback:
Field Days: Includes learning activities sponsored at demonstration farms, water treatment plants, and green infrastructure					
Presentations: Include any presentations your organization has given to general public/homeowners, stormwater professionals, and stakeholders at conferences, community groups, and other venues. Typically < 2 hours. (Please do not include presentations that were only attended.)					
Conferences: Include conferences that your organization has sponsored. (Please do not include conferences you have attended; if someone from your organizations has given a presentation at a conference, please record it above in "Presentations.")					
Educational Events/Workshops/Trainings:					
Technical Assistance in Implementing BMPs / Funded Funded Research:					
Awards/Recognition Activities:					



# KISHWAUKEE WATER RECLAMATION DISTRICT Outreach and Communications (JANUARY - DECEMBER 2020)

Description (add rows as needed):	Name:	Reach/Impact/Downloads:	Topics Covered:	Inarther is co-sponsor or attendee	Response/ Feedback:
Print or Media:					
Outreach Tools/Publications:					
Radio, Television, and Podcasts:					
Social Media:					
Newsletters:					
Surveys:					
Additional Activities:					



### KISHWAUKEE WATER RECLAMATION DISTRICT Facility Nutrient Tracking (JANUARY - DECEMBER 2020)

Facility		Nutrient Removal (Bio-P, Bio- N, None etc.)	DAF	Year	Daily Avg. Flow	Total P In	Total P Out	Total P Out Annual Avg.	Total N In	Out	Total N Out Annual Avg.	Watershed group (WS Group name or "No")	Comments (about data, and Capital Projects for Nutrients, what was done, \$ spent etc.)
			MGD		MGD	lb/yr	lb/yr	(mg/L)	lb/yr	lb/yr	(mg/L)		
				2017									
KWRD WWTP	IL0023027	None	8.63	2019	7.13	83,778	50,137	2.31					90% complete construction of \$48M BNR Project
				2020	5.45	96,069	25,217	1.52				Upper South Branch Kishwaukee River Watershed	BNR Project brought online in March of 2020.
				2021									
				2022									
				2023									
				2024									
				2025									



#### METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO Staff and Financial Resources (JANUARY - DECEMBER

Description:	Program (if applicable):	Dollars/Number of Staff:	
Capital Improvements (add rows if more than one)			
	Contract 11-195-AP, Ostara Phosphorus Recovery Facility,		20
	Stickney Water Reclamation Plant (SWRP) (recovery of	¢120, c02	
	phosphorus utilizing Ostara technology) construction	\$139, 692	
	completed, reactors in operation) Final payment was		
	made in 2020, Contract closed.		ł
	Contract 15-124-3P, Conversion of Two Gravity		İ
	Concentration Tanks to Primary Sludge Fermenters, SWRP		İ
	(produce additional carbon to be introduced to the	\$120,996	
	aeration batteries for use in stabilizing EBPR treatment	1 3/22	ĺ
	process) (in construction, substantial completion		ĺ
	completed,)		j
	Contract 16-272-3P, Conversion of Primary Tanks to High		İ
	Strength Waste Receiving and Distribution - Design and		İ
	Evaluation of Alternatives, Calumet WRP (CWRP) (to allow		
	us to receive a carbon sources to be introduced to the	Ć50.540	
	aeration batteries to allow EBPR to occur as this plant is	\$58,549	
	carbon limited) (design completed by consultant, project		
	on hold) Utilizing consultant to do further modeling		
	analasis of bioP enhancement options.		
	Contract 18-248-3P, S2EBPR Pilot Study, CWRP (will pilot a		
	sidestream return activated sludge fermentation to		
	5		
	evaluate its effectiveness and benefits to EBPR for	\$1,850,042	Ì
	potential full scale implementation at any of the District's		Ì
	WRPs) (Construction in progrees. Equipment installed		
	and 60-day opertional test to begin in January, 2021.)		
	Contract 19-157-3P, Installation of Mechanical Mixers,		İ
	SWRP. This contract will install mechanical mixers in pass		
	•		İ
	one of the Aeration Batteries, A, C and D. (Design was	\$0	l
	completed, Contract advertised and awarded. Contractor		1
	in mobilization and submittal proces late 2020.)		
perations and Maintenance (staff, materials and supplies for da	<u></u>		
day nutrient work)		4.00.000	ļ
	M&O Dept - Ostara P removal - chemicals	\$423,930	1
	Maintenance & Operations (M&O) Dept. – Kirie Bio-P		ĺ
	instrumentation and equipment - maintenance parts &	\$57,300	ĺ
	supplies		ĺ

(87) Illinois NLRS Biennial Report | 2021



## METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO Staff and Financial Resources (JANUARY - DECEMBER 2020)

Description:	Program (if applicable):	Dollars/Number of Staff:
Total Staff working on NLRS activities (in any capacity)  No. of staff hours in the year or FTEs & approx. \$ value) working on nutrient related matters		
	Engineering Dept Design and Post award engineering, consultant oversight and construction oversight (~9 FTEs)	\$1,260,000
	M&O Dept – Kirie BioP instrumentation and pilot operation – Staff time instrument install, repair, sample, filter and perform instrument maintenance (~0.28 FTEs)	\$26,000
	M&O Dept – Stickney BioP (operations staff, ~2 FTEs)	\$218,000
	M&R Dept Technical oversight on design and feasibility studies (~0.25 FTEs)	\$35,000
	M&R Dept Research and technical oversight at 7 WRPs (~3 FTEs)	\$490,000
	M&R Dept Research and Demonstration at the Fulton County site and other collaboration with the agricultural sector (~1.5 FTEs)	\$220,000
	M&R Dept Microbiological research and support (~0.3 FTEs)	\$46,000
Other Resources Invested (add more rows if needed)		
	M&R Dept Research supplies and consumables at WRPs	\$15,570
	M&R Dept Research and Demonstration and collaboration with the agricultural sector at the Fulton County site	\$119,000



Description (add rows as needed):	Name:	Attendance (Includes Virtual Events) and Target Audience (general public/homeowner or professional staff):	Topics Covered:	Partnerships (Optional: clarify if partner is cosponsor or attendee at event):	Response/Feedback:
Field Days: Includes learning activities sponsored at demonstration farms, water treatment plants, and green infrastructure tours.	Fulton County Virtual Workshop	35	The purpose of the workshop was to get input from farmers and improve the value of the collaborations on the Fulton County nutrient loss reduction program.	The Illinois Farm Bureau (IFB) cp-sponsor	
professionals, and stakeholders at	The MWRD held four main virtual tours for general audiences #1 Sept. 23, #2 Oct. 14, #3 Nov. 18 and #4 Dec. 16. The MWRD participates and presents at five different watershed planning councils, inlucing the CalSag Channel Watershed Planning Council (WPC), Little Calumet River WPC, Lower Des Plaines River WPC, Poplar Creek and Upper Salt Creek WPC, and North Branch of the Chicago River WPC.	>2000	Watershed Planning Councils represent communities located within the six major watersheds in Cook County. They communicate the needs and interests of the members of the public and local governments to the MWRD.		
Conferences: Include conferences that your organization has sponsored. (Please do not include conferences you have attended; if someone from your organizations has given a presentation at a conference, please record it above in "Presentations.")					



Description (add rows as needed):	Name:	Attendance (Includes Virtual Events) and Target Audience (general public/homeowner or professional staff):	Topics Covered:	Partnerships (Optional: clarify if partner is co-sponsor or attendee at event):	Response/Feedback:
Educational Events/Workshops/Trainings: Include workshops providing technical assistance and training-sponsored by your organization. Please indicate target audience and if there was a certification earned. (Please do not include workshops/trainings that were only attended.)	The MWRD's 8th Annual Sustainability Summit was held virtualy on Oct. 21, 2020.	400	Benefits of using sustainable resources like the MWRD's EQ Compost and EQ Biosolids; using green infrastructure to combat stormwater flooding and improve water quality, how to help Illinois save the Monarch population; use of goats and sheep to control vegetation and how a revitalized Chicago Area Waterway System is now home to an increasing population of native fish. https://mwrd.org/sites/default/files/20 20-10/Sustainability%20Summit_201027%2 0%281%29.pdf		
Awards/Recognition Activities: Include any awards and recognitions your organization has given for nutrient loss reduction practices. Also, include any awards or recognitions that your organization might have received for its nutrient loss practices.	● ₱ movation Collaboration of the Year Award, Algae Biomass Organization.  ● ₱ tility of the Future Today Recognition, Water Environment Federation (WEF), the National Association of Clean Water Agencies (NACWA), the Water Research Foundation (WRF) and the WateReuse Association. ● ₱ Balph Fuhrman Medal for Outstanding Water Quality Academic-Practice Collaboration, WEF. ● Public Communication & Outreach Program Award, WEF. ● Partners for Places Award for Space To Grow: Greening Chicago Schoolyards, Funders Network.		nutrient recovery through algae harvesting, green infrastructure, stormwater capture, public communication and outreach		



Description (add rows as needed):	Name:	Reach/Impact/Downloads:	Topics Covered:	Partnerships (Optional: clarify if partner is co-sponsor or attendee at event):	Response/Feedback:
Print or Media: Include newspaper articles or press releases that your organization has	These media advisories/press releases/media reports were also posted on mwrd.org and shared on MWRD social media, including Facebook, LinkedIn, Twitter and Instagram.	> 10,000		MWRD and partners at Iowa State Universityaffiliate startup Gross-Wen Technologies and DOE's National Renewable Energy Laboratory	
placed in the media.	February 17, 2020: "Touring A Global Wastewater Marvel In Our Own Backyard," Current. https://www.currentwater.org/blog/touring-a-global-wastewater-marvel-in-our-own-backyard		nutrient recovery	Current Chicago	
	March 12, 2020: "New energy-efficient technologies will focus on water desalination, purification and reuse," Northwestern University. https://news.northwestern.edu/stories/2020/03/u-s-israel-consortium-launches-21-4-million-initiative-to-develop-water-energy-technologies/&fj=1		nutrient recovery	Israel-US CoWERC is a consortium of leading research institutions, water utilities, and private companies. The US team is led by Northwestern University and includes the MWRD, Argonne National Laboratory, Yale University, DuPont Water Solutions, AECOM, Hampton Roads Sanitation District (HRSD), Current, and CycloPure. The Israeli team is led by Ben-Gurion University of the Negev and includes the Technion Israel Institute of Technology, Mekorot-Israel National Water Company Fluence Corporation, and The Galilee Society.	
	March 12, 2020: "MWRD to release Green Neighbor Guide to prepare homeowners, landscapers for managing stormwater," MWRD press release. https://mwrd.org/mwrd-release-green-neighbor-guide-prepare-homeowners-landscapers-managing-stormwater		green infrastructure, nutrient capture		



Description (add rows as needed):		Attendance (Includes Virtual Events) and Target Audience (general	Topics Covered:	Partnerships (Optional: clarify if partner is co-sponsor or attendee at event):	Response/ Feedback:
Print or Media (Cont.):	April 13, 2020: "\$21.4 million US-Israel center to develop water-energy technologies," Water World. https://www.waterworld.com/drinking-water/article/14173950/new-214-million-usisrael-center-aims-to-develop-waterenergy-technologies		nutrient recovery	Israel-US CoWERC is a consortium of leading research institutions, water utilities, and private companies. The US team is led by Northwestern University and includes the MWRD, Argonne National Laboratory, Yale University, DuPont Water Solutions, AECOM, Hampton Roads Sanitation District (HRSD), Current, and CycloPure. The Israeli team is led by Ben-Gurion University of the Negev and includes the Technion Israel Institute of Technology, Mekorot-Israel National Water Company Fluence Corporation, and The Galilee Society.	
	June, 12, 2020: "MWRD introduces new efficient online payment system," MWRD press release. https://mwrd.org/mwrd-introduces-new-efficient-online-payment-system		biological phosphorus removal		
	July 13, 2020: "DOE grant will aid MWRD-Iowa State University partnership," MWRD press release. https://mwrd.org/doe-grant-will-aid- mwrd-iowa-state-university-partnership		nutrient recovery	MWRD and partners at Iowa State Universityaffiliate startup Gross-Wen Technologies and DOE's National Renewable Energy Laboratory	
	July 13, 2020: " NEWS "Gross-Wen to partner on phosphorus removal project funded by DOE," Business Record. https://businessrecord.com/Content/Default/All-Latest-News/Article/Gross-Wen-to-partner-on-phosphorus-removal-project-funded-by-DOE/-3/248/90668		nutrient recovery	MWRD and partners at Iowa State Universityaffiliate startup Gross-Wen Technologies and DOE's National Renewable Energy Laboratory	
	July 16, 2020: "Gross-wen Technologies, partners awarded \$240,000 grant to develop energy technology," Ames Tribune. https://www.amestrib.com/business/20200714 /what8217s-happening-in-business		nutrient recovery	MWRD and partners at Iowa State Universityaffiliate startup Gross-Wen Technologies and DOE's National Renewable Energy Laboratory	
	September 25, 2020: "U of I receives EPA funding for Fulton County research," FarmWeek Now. https://www.farmweeknow.com/environmental /u-of-i-receives-epa-funding-for-fulton-county-research/article_6cbd7022-fcdc-11ea-8d44-97a1ad12c5e1.html?utm_source=Email&utm_medium=Informz&utm_campaign=FWN%20Daily%20Update&_zs=3MJ6D1&_zl=Scxw5		nutrient loss reduction strategies	MWRD, U of I Crop Science and Agricultural and Biological Engineering Departments, Illinois Sustainable Technology Center, Illinois Central College, Ecosystem Exchange, MWRD, Illinois Farm Bureau and Fulton County Farm Bureau.	



Description (add rows as needed):		Attendance (Includes Virtual Events) and Target Audience (general public/homeowner or professional staff):	Tonics Covered:	Partnerships (Optional: clarify if partner is co-sponsor or attendee at event):	Response/Feedback:
Print or Media (Cont.):	October 7, 2020: "Changes to MWRD Resource Recovery Ordinance reduces brewery waste tipping fees," MWRD press release. https://mwrd.org/changes-mwrd-resource-recovery-ordinance-reduces-brewery-waste-tipping-fees		biological phosphorus removal	llinois Craft Brewers Guild	
	October 8, 2020: "MWRD staff honored with two international awards from Water Environment Federation," MWRD press release. https://mwrd.org/mwrd-staff-honored-two-international-awards-water-environment-federation		Inlitrient recovery	MWRD and partners at Iowa State Universityaffiliate startup Gross-Wen Technologies	
	October 27, 2020: "Virtual Sustainability Summit shines light on MWRD and partners' missions to protect the environment," MWRD press release. https://mwrd.org/virtual-sustainability-summit-shines-light-mwrd-and-partners-missions-protect-environment		nutrient recovery, stormwater management, resource recovery, wastewater treatment, water quality improvements		
	December 4, 2020: "MWRD's work to keep clean water flowing for resilient, sustainable and livable communities earns national award," MWRD press release. https://mwrd.org/mwrdswork-keep-clean-water-flowing-resilient-sustainable-and-livable-communities-earns-national			Water Environment Federation (WEF), the National Association of Clean Water Agencies (NACWA), the Water Research Foundation (WRF) and the WateReuse Association, and is supported by the Environmental Protection Agency (EPA) Office of Wastewater Management, and the Department of Energy (DOE) Office of Energy Efficiency & Renewable Energy	
	December 22, 2020: "Rural-urban collaboration yields alternative solutions to improve state water quality," MWRD press release. https://mwrd.org/rural-urban-collaboration-yields-alternative-solutions-improve-state-water-quality		nutrient loss reduction strategies	Illinois Farm Bureau	
	Fulton County Nutrient Loss Reduction Research and Demonstration Program Research and Outreach Highlights (2015-2019) "https://mwrd.org/sites/default/files/documents/Fulton%20NL RS%20Newsletter_10.7_Print.pdf"			MWRD and partners at lowa State Universityaffiliate startup Gross-Wen Technologies and DOE's National Renewable Energy Laboratory	



Description (add rows as needed):		Attendance (Includes Virtual Events) and Target Audience (general public/homeowner or professional staff):	Topics Covered:	Partnerships (Optional: clarify if partner is cosponsor or attendee at event):	Response/Feedback:
Outreach Tools/Publications: Include publications, posters, booklets, infographics, videos, etc.	mwrd website	https://mwrd.org/fulton-county-nutrient- loss-reduction-strategies	nutrient loss reduction strategies	MWRD and partners at Iowa State Universityaffiliate startup Gross-Wen Technologies and DOE's National Renewable Energy Laboratory	
Radio, Television, and Podcasts: Include any radio and television appearances or podcasts you have produced or in which your organization has been featured				MWRD and partners at Iowa State Universityaffiliate startup Gross-Wen Technologies and DOE's National Renewable Energy Laboratory	
Social Media: Include posts about nutrient loss reduction strategies made on official organization accounts (e.g. Twitter, Facebook, Instagram). High-level summary preferred, including level of account activity and frequency of posting NLRS content.	ct/ https://twitter.com/MWRDGC https://www.instagram.com/mwrd_of_greater_chicago/ https://www.linkedin.com/company/metropolitan-water- reclamation-district-of-greater-chicago https://www.voutube.com/channel/LICTowYGSYY7CoviDeddNle	As of Jan. 11, 2021, the MWRD had more than 7,073 followers on Facebook, 4,434 on Twitter, 4,540 on LinkedIn and 1,259 on Instagram and rising. In 2020, we reached nearly 1.2 million impressions on Twitter and 260,000 impressions on YouTube, with more than 43,000 views.		MWRD and partners at Iowa State Universityaffiliate startup Gross-Wen Technologies and DOE's National Renewable Energy Laboratory	The MWRD promotes resource and nutrient recovery content and nutrient loss reduction strategies information, along with, water quality and watershed management information on social media platforms throughout the year.
Newsletters: Include newletters your organization distributes, not those received.	https://mwrd.org/mwrd-flow-december-2020 https://mwrd.org/mwrd-flow-november-2020 https://mwrd.org/mwrd-flow-october-2020 https://mwrd.org/mwrd-flow-september-2020	47,000, 26 percent open rate	MWRD For The Love of Water (MWRD FLOW) is a monthly summary of news and notes from the Metropolitan Water Reclamation District of Greater Chicago.	MWRD and partners at Iowa State Universityaffiliate startup Gross-Wen Technologies and DOE's National Renewable Energy Laboratory	



## METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO Facility Nutrient Tracking (JANUARY - DECEMBER 2020)

Facility	NPDES Number	Nutrient Removal (Bio-P, Bio-N, None etc.)	DAF	Daily Avg. Flow	Total P In	Total P Out	Total P Out Annual Ave.	Total N In	Total N Out	Total N Out Annual Ave.	Watershed group (WS Group name or "No")	Comments (about data, and Capital Projects for Nutrients, what was done, \$ spent etc.)
				MGD	lb/yr		Annu. Ave (mg/L)	lb/yr	lb/yr	(mg/L)		
Stickney	IL0028053	Bio-P	1200	698	24,109,865	2,140,950	1.2	101,544,738	18,269,696	9.9	Waterways	Data was derived through District Maintenance and Operations Dept. (M&O) routine sampling and Analytical Lab Division (ALD) analyses; batteries were converted to an anoxic-anaerobic-oxic configuration; Ostara® process operating for P-recovery on post-digester centrate; installed actuators on air-valves for automation in summer 2018; currently accepting high strength organic material for carbon supplementation; P removal feasibility study was completed in mid 2019; received new NPDES permit for allows P trading with Lemont WRP; mechanical mixers have been designed and will be installed in 3 out of 4 batteries starting in 2021; a permanent chemical P polishing system is being designed but will be installed after the permit start of August 2021; a temporary chemical P facility is planned for installation prior to permit start date.
Calumet	IL0028061	None	354	264.1	3,322,303	2,068,871	2.8	16,333,503	7,508,967	9.6	Waterways	Data was derived through District M&O routine sampling and ALD analyses; all batteries were converted to an anoxic-anaerobic-oxic configuration, but this practice was discontinued in mid 2018 and batteries reverted to full aerobic conditions; currently accepting high strength organic material for carbon supplementation (this practice is still occurring though no Bio-P configurations are in place); P removal feasibility study was completed in mid 2019; a pilot sidestream EBPR test concluded in late 2020; a full-scale sidestream EBPR test in one battery starting in 2021; a chemical P facility is being designed for the plant to work in concert with Bio-P.



## METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO Facility Nutrient Tracking (JANUARY - DECEMBER 2020)

		Nutrient Removal									Watershed group	
		(Bio-P, Bio-N,		Daily Avg.		Total P	Total P Out		Total N	Total N Out	(WS Group	Comments
Facility	Number	None etc.)	DAF	Flow	Total P In	Out	Annual Ave.	Total N In			name or "No")	(about data, and Capital Projects for Nutrients, what was done, \$ spent etc.)
				MGD	lb/yr		Annu. Ave (mg/L)	lb/yr	lb/yr	(mg/L)		
Terrence	IL0028088	None	333	207	2,226,604	880,642	1.4	16,117,532	7,209,047	11.1	Chicago Area	Data was derived through District M&O routine sampling and ALD analyses.
J.											Waterways	Currently doing pilot scale testing of algae for nutrient removal; P removal feasibility
O'Brien												study was completed in mid 2019. A sidestream EBPR pilot was initiated in 2020.
James C.	IL0047741	Bio-P	52	35	338,652	51,584	0.4	2,432,615	905,099	8.2	Lower Des	Data was derived through District M&O routine sampling and ALD analyses; one of
Kirie											Plaines	two batteries converted to a quasi-anaerobic-oxic configuration (other plant
												battery is pass through); 2 of 6 tanks have baffle walls and large bubble mixers
												installed; P removal feasibility study completed in late 2018; joined the Lower Des
												Plaines Watershed Group in late 2018; received new draft NPDES permit for review
												in December 2020.
John E.	IL0036340	Nitrogen	30	24	410,556	210,437	3.1	2,305,102	1,266,155	15.8	DuPage	Data was derived through District M&O routine sampling and ALD analyses; no bio-P
Egan		removal									•	efforts completed thus far but possible approaches have been developed; Anita
		on sidestream									Workgroup	Mox process installed on post-digester centrate in August 2016 to reduce nitrogen
												loading at plant headworks but is no longer running due to mechanical issues; P
												removal feasibility study was completed in late 2018; received a final NPDES permit
				_								effective January 2021 in December 2020.
Hanover	IL0036137	None	12	8	113,983	58,396	2.7	797,357	420,794	17.7	DuPage	Data was derived through District M&O routine sampling and ALD analyses; P
Park											-	removal feasibility study was completed in mid 2018; received new draft NPDES
Lamant	IL0028070	Nama	2.2	2.0	20.007	17.040	1.9	220.026	142.052	15.5		permit for review in December 2020.
Lemont	110028070	None	2.3	2.6	29,087	17,940	1.9	220,036	142,852	15.5	Lower Des	Data was derived through District M&O routine sampling and ALD analyses; P
											Plaines	removal feasibility study was completed in mid 2018; joined the Lower Des Plaines
												Watershed Group in late 2018; received new draft NPDES permit for review in
												Summer 2019; new draft permit allows Stickney WRP to trade P with Lemont WRP.
		l										



### NORTH SHORE WATER RECLAMATION DISTRICT Staff and Financial Resources (JANUARY - DECEMBER 2020)

Description:	Program (if applicable):	Dollars/Number of Staff:
Grants or Loans Received		
Grants Given		
Funded Programs/Opportunities (e.g cost shares sponsored by your organization such as rain barrel rebates, stormwater utility fee incentives, etc.)		
Capital Improvements (add rows if more than one)		
Operations and Maintenance (staff, materials and supplies for day to day nutrient work)		
Feasibility Studies or Permit Required Projects not already listed (add rows if more than one)		
Total Staff working on NLRS activities (in any capacity)  No. of staff hours in the year or FTEs & approx. \$ value) working on nutrient related matters		
Other Resources Invested (add more rows if needed)		



# NORTH SHORE WATER RECLAMATION DISTRICT Outreach and Communications (JANUARY - DECEMBER 2020)

Description (add rows as needed):	Name:	Attendance (Includes Virtual Events) and Target Audience (general public/homeowner or professional staff):	Topics Covered:	Partnerships (Optional: clarify if partner is co- sponsor or attendee at event):	Response/Feedback:
Educational Events/Workshops/Trainings: Include workshops providing technical assistance and training-sponsored by your organization. Please indicate target audience and if there was a certification earned. (Please do not include workshops/trainings that were only attended.)	Biological Phosphorus Removal Workshops	INSWRD Staff	Various P Removal Optimization Strategies	In-House	
	BNR Presentations & Workshops	NSWRD Staff	Varous P Removal Optimization & Energy Savings	Com Ed	Dr. Wahlberg working with the program is a wealth of knowledge.
Newsletters: Include newletters your organization distributes, not those received.	Annual Watershed Newsletters	IOnline	Various Water Quality & Accomplishments	DRWW or NBWW	



#### NORTH SHORE WATER RECLAMATION DISTRICT Facility Nutrient Tracking (JANUARY - DECEMBER 2020)

Facility	NPDES Number	Nutrient Removal (Bio-P, Bio-N, None etc.)	DAF	Year	Daily Avg. Flow	Total P	Total P Out		Total N In		Total N Out Annual Avg.	Watershed group (WS Group name or "No")	Comments (about data, and Capital Projects for Nutrients, what was done, \$ spent etc.)
			MGD		MGD	lb/yr	lb/yr	(mg/L)	lb/yr	lb/yr	(mg/L)		
NSWRD - Clavey Road WRF	IL0030171		17.8	2017	14.17	118,000	50,000	1.12	969,000	837,000	17.4	No	
				2018	15.26	135,000	44,400	0.95	1,139,000	794,000	17.7	North Branch (NBWW)	
		Bio-P		2019	17.86	145,000	58,000	1.09	1,199,000	811,000	15.3	"	
		Bio-P		2020	13.84	130,000	39,700	1.05	972,000	710,000	18.8	п	
				2021									
NSWRD - Gurnee												Des Plaines River	
WRF	IL0035092		23.6	2017	15.23	187,000	73,700	1.57	1,390,000	1,020,000	23.3	(DRWW)	
				2018	15.41	202,000	52,700	1.11	1,760,000	912,000	20.1	"	
		Bio-P		2019	16.40	240,000	65,900	1.35	1,731,000	897,000	18.3	"	
		Bio-P		2020	16.40	227,000	39,700	0.88	1,572,000	876,000	19.4	п	
				2021									
NSWRD -												Des Plaines River	
Waukegan WRF	IL0030244		22.0	2017	21.67	180,000	85,400	1.26	1,630,000	1,110,000	16.8	(DRWW)	
				2018	23.38	250,000	46,300	0.67	1,910,000	1,080,000	16.0	II .	
		Bio-P		2019	25.67	255,000	64,100	0.84	1,914,000	1,159,000	15.2	п	
		Bio-P		2020	21.89	216,000	65,200	0.97	1,617,000	1,055,000	15.7		
				2021									



### SANGAMON COUNTY WATER RECLAMATION DISTRICT Staff and Financial Resources (JANUARY - DECEMBER 2020

Description:	Program (if applicable):	Dollars/Number of Staff:
Grants or Loans Received		
Grants Given		
Funded Programs/Opportunities (e.g cost shares sponsored by your organization such as rain barrel rebates, stormwater utility fee incentives, etc.)		
Capital Improvements (add rows if more than one)		
Operations and Maintenance (staff, materials and supplies for day to day nutrient work)	\$64,348.42 (PACL for P-Removal Enhancement)	
Feasibility Studies or Permit Required Projects not already listed (add rows if more than one)		
Total Staff working on NLRS activities (in any capacity) No. of staff hours in the year or FTEs & approx. \$ value) working on nutrient related matters	38480 hours (Total Staff @ SCWRD 74 employees)	
Other Resources Invested (add more rows if needed)		



# SANGAMON COUNTY WATER RECLAMATION DISTRICT Outreach and Communications (JANUARY - DECEMBER 2020)

Description (add rows as needed):	Name:	Attendance (Includes Virtual Events) and Target Audience (general public/homeowner or professional staff):	Topics Covered:	Partnerships (Optional: clarify if partner is co-sponsor or attendee at event):	Response/Feedback:
Field Days: Includes learning activities sponsored at demonstration farms, water treatment plants, and green infrastructure					
Presentations: Include any presentations your organization has given to general public/homeowners, stormwater professionals, and stakeholders at conferences, community groups, and other venues. Typically < 2 hours. (Please do not include presentations that were only attended.)					
Conferences: Include conferences that your organization has sponsored. (Please do not include conferences you have attended; if someone from your organizations has given a presentation at a conference, please record it above in "Presentations.")					
Educational Events/Workshops/Trainings:					
Technical Assistance in Implementing BMPs / Funded					
Funded Research: Awards/Recognition Activities:					



# SANGAMON COUNTY WATER RECLAMATION DISTRICT Outreach and Communications (JANUARY - DECEMBER 2020)

Description (add rows as needed):	Name:	Reach/Impact/Downloads:	Topics Covered:	Inartner is co-sponsor or attendee	Response/ Feedback:
Print or Media:					
Outreach Tools/Publications:					
Radio, Television, and Podcasts:					
Social Media:					
Newsletters:					
Surveys:					
Additional Activities:					



# SANGAMON COUNTY WATER RECLAMATION DISTRICT Facility Nutrient Tracking (JANUARY - DECEMBER 2020)

	NPDES	Nutrient Removal (Bio-P, Bio-N, None						Total P Out		Total N	Total N Out	Watershed group (WS Group name or	Comments (about data, and Capital Projects for Nutrients, what was done, \$ spent
Facility	Number	etc.)	DAF	Year	Flow	In		Annual Avg.			Annual Avg.	"No")	etc.)
			MGD		MGD	lb/yr	lb/yr	(mg/L)	lb/yr	lb/yr	(mg/L)		
SCWRD Spring													
Creek Facility	IL0021989	Bio-P & Bio-N	32	2020	25.71	262,184	38,454	0.49	1,483,239	706,304	9.0	No	
SCWRD Sugar Creek													
Facility	IL0021971	Bio-P & Bio-N	15	2020	10.45	78,150	16,906	0.53	481,660	200,957	6.3	No	



### URBANA CHAMPAIGN SANITARY DISTRICT Staff and Financial Resources (JANUARY - DECEMBER 2020)

Description:	Program (if applicable):	Dollars/Number of Staff:
Grants or Loans Received	Nothing specific for nutrients at Northeast Plant.	
Grants Given		
Funded Programs/Opportunities (e.g cost shares sponsored by your organization such as rain barrel rebates, stormwater utility fee incentives, etc.)		
Capital Improvements (add rows if more than one)		
Operations and Maintenance (staff, materials and supplies for day to day nutrient work)		
Feasibility Studies or Permit Required Projects not already listed (add rows if more than one)	Southwest Plant Long Range Facilities Plan is an ongoing project. Nutrients are an important part of that study. We are currently testing a new process that would further reduce TP and TN even with an expanded treatment flow rate.	\$250,000
Total Staff working on NLRS activities (in any capacity)  No. of staff hours in the year or FTEs & approx. \$ value) working on nutrient related matters		
Other Resources Invested (add more rows if needed)		



### URBANA CHAMPAIGN SANITARY DISTRICT Outreach and Communications (JANUARY - DECEMBER 2020)

Description (add rows as needed):	Name:	Attendance (Includes Virtual Events) and Target Audience (general public/homeowner or professional staff):	Topics Covered:	Partnerships (Optional: clarify if partner is co-sponsor or attendee at event):	Response/Feedback:
Presentations: Include any presentations your organization has given to general public/homeowners, stormwater professionals, and stakeholders at conferences, community groups, and other venues. Typically < 2 hours. (Please do not include presentations that were only attended.)	Salt Fork Watershed Implementation Group - This is the organization that will be our stakeholder organization for the NARP for UCSD, and Rantoul and potentially Danville	to personal interest. Includes Soil and Water Conservation District staff, UIUC staff, City Champaign, local farmers, Prairie Rivers Network, and others. 4 quarterly meetings per year	Anything within the watershed. Originally this was established to implement some of the goals of a TMDL. As that fell by the wayside, we've discussed INLRS generally since we had people like Mark David and Lowell Gentry in the room. Now with NARP requirement, this is becoming a topic of interest.	Champaign County Soil and Water Conservation District is the original host organization. As such, there has always been a bit of an ag component to the meetings. We may need to revisit the organization due to NARP activitities.	
Educational Events/Workshops/Trainings:					
Technical Assistance in Implementing BMPs / Funded					
Funded Research:					
Awards/Recognition Activities:					



#### URBANA CHAMPAIGN SANITARY DISTRICT Facility Nutrient Tracking (JANUARY - DECEMBER 2020)

		Nutrient Removal (Bio-P, Bio-N, None etc.)	DAF	Year	Daily Avg. Flow	Total P In	Total P	Total P Out Annual Avg.	Total N In	Total N Out	Total N Out Annual Avg.	Watershed group (WS Group name or "No")	Comments (about data, and Capital Projects for Nutrients, what was done, \$ spent etc.)
			MGD		MGD	lb/yr	lb/yr	(mg/L)	lb/yr	lb/yr	(mg/L)		
UCSD NE STP	IL0031500	None	17.3	2020	12.04 INF	243,000	73,500	2.0	1,408,000	761,000	20.7	Salt Fork Watershed Implementation Group	
UCSD SW STP	IL0031526	Bio-P	7.98	2020	8.01 INF	117,000	10,200	0.32	877,800	257,000	10.5		



#### WHEATON SANITARY DISTRICT Staff and Financial Resources (JANUARY - DECEMBER 2020)

Description:	Program (if applicable):	Dollars/Number of Staff:
Grants or Loans Received		
Grants Given		
Funded Programs/Opportunities (e.g cost shares sponsored by your organization such as rain barrel rebates, stormwater utility fee incentives, etc.)		
Capital Improvements (add rows if more than one)		
Operations and Maintenance (staff, materials and supplies for day to day nutrient work)		
Feasibility Studies or Permit Required Projects not already listed (add rows if more than one)		
Total Staff working on NLRS activities (in any capacity)  No. of staff hours in the year or FTEs & approx. \$ value) working on nutrient related matters		
Other Resources Invested (add more rows if needed)		



#### WHEATON SANITARY DISTRICT Outreach and Communications (JANUARY - DECEMBER 2020)

Description (add rows as needed):	Name:	Reach/Impact/Downloads:	Topics Covered:	Partnerships (Optional: clarify if partner is co-sponsor or attendee at event):	Response/Feedback:
Outreach Tools/Publications:					
Include publications, posters, booklets,	wsd.dst.il.us website-P informational flyer				
infographics, videos, etc.					
Radio, Television, and Podcasts:					
Social Media:					
Newsletters:					
Surveys:					
Additional Activities:					



#### WHEATON SANITARY DISTRICT Facility Nutrient Tracking (JANUARY - DECEMBER 2020)

	NPDES	Nutrient Removal (Bio-P, Bio-N, None etc.)	DAF	Year	Daily Avg. Flow			Total P Out Annual Avg.		Total N Out	Total N Out Annual Avg.	Watershed group (WS Group name or "No")	Comments (about data, and Capital Projects for Nutrients, what was done, \$ spent etc.)
			MGD		MGD	lb/yr	lb/yr	(mg/L)	lb/yr	lb/yr	(mg/L)		
Wheaton													
Sanitary District	IL0031739	None	8.9	2020	7.63	83,848	57,734	2.90	689,362	394,983	19.84	DRSCW	